



**REEDY CREEK  
IMPROVEMENT DISTRICT**

P.O. BOX 10170 LAKE BUENA VISTA, FLORIDA 32830-0170

PLANNING AND ENGINEERING

December 14, 2006

Mr. Ed Yaun, P.E.  
South Florida Water Management District  
1707 Orlando Central Parkway, Suite 200  
Orlando, FL 32809

SUBJECT: DVC @ Disney Animal Kingdom Lodge  
Orange County S33,34/T24S/R27E  
Modification of Permit #48-00714-S

Dear Ed,

Enclosed please find a check #0004985469 for the amount of \$1000 and five copies of the following:

1. The signed and sealed construction plans, and
2. The signed and sealed report and calculations.

The Reedy Creek Improvement District staff reviewed the information and found it in substantial compliance with our SFWMD conceptual permit. Please review the material and issue an ERP permit at your earliest convenience. Should you have any questions or need any information, please call me.

Sincerely,

Mahmoud ElSabagh  
Water Resources Engineer

Enclosures

cc: Kate Kolbo, RCID  
John Riordan, HCE

APP# 061214-5

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RCID Application  
DVC @ Disney's Animal Kingdom Lodge

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ACOE Application # \_\_\_\_\_  
Date Application Received \_\_\_\_\_  
Proposed Project Lat. \_\_\_\_\_  
Proposed Project Long. \_\_\_\_\_

APP# 061214-5  
DEP/WMD Application # \_\_\_\_\_  
Date Application Received 1,000.00  
Fee Received \$ \_\_\_\_\_  
Fee Receipt # \_\_\_\_\_

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SECTION A

Are any of the activities described in this application proposed to occur in, on, or over wetlands or other surface waters?  
☒ Yes ☐ No  
Is this application being filed by or on behalf of a government entity or drainage district?  
☐ Yes ☒ No

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A. Type of Environmental Resource Permit Requested (check at least one)

- ☐ Noticed General - include information requested in Section B.  
☐ Standard General (Single Family Dwelling) - include information requested in Sections C and D.  
☒ Standard General (all other projects) - include information requested in Sections C and E.  
☐ Individual (Single Family Dwelling) - include information requested in Sections C and D.  
☐ Individual (all other projects) - include information requested in Sections C and E.  
☐ Conceptual - include information requested in Sections C and E.  
☐ Mitigation Bank Permit (construction) - include information requested in Section C and F.  
(If the proposed mitigation bank involves the construction of a surface water management system requiring another permit defined above, check the appropriate box and submit the information requested by the applicable section).  
☐ Mitigation Bank (conceptual) - include information requested in Section C and F.

B. Type of activity for which you are applying (check at least one)

- ☐ Construction or operation of a new system including dredging or filling in, on or over wetlands and other surface waters.  
☐ Alteration or operation of an existing system which was not previously permitted by a WMD or DEP.  
☒ Modification of a system previously permitted by a WMD or DEP. Provide previous permit numbers. App #980427-3 Permit #48-00714-S  
☒ Alteration of a system ☐ Extension of permit duration ☐ Abandonment of a system  
☒ Construction of additional phases of a system ☐ Removal of a system

C. Are you requesting authorization to use State Owned Lands. ☐ Yes ☒ No  
(If yes, include the information requested in Section G.)

D. For activities in, on or over wetlands or other surface waters, check type of federal dredge and fill permit requested:

- ☐ Individual ☐ Programmatic General ☒ ACOE Permit  
☐ General ☐ Nationwide ☐ Not Applicable

E. Are you claiming to qualify for an exemption? ☐ Yes ☒ No  
If yes, provide rule number if known. \_\_\_\_\_

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 DVC @ Disney's Animal Kingdom Lodge

OWNER(S) OF LAND		ENTITY TO RECEIVE PERMIT (IF OTHER THAN OWNER)	
NAME	Lee Schmudde	NAME	Kathryn Boes Kolbo, P.E.
ADDRESS	Post Office Box 10170	ADDRESS	Post Office Box 10170
CITY, STATE, ZIP	Lake Buena Vista, FL 32830	CITY, STATE, ZIP	Lake Buena Vista, FL 32830-0170
COMPANY	Walt Disney World Hospitality & Recreation Corp	COMPANY	Reedy Creek Improvement District
Title:	Vice President	TITLE	Manager Planning & Engineering
TELEPHONE	(407) 828-2250	TELEPHONE	(407) 828-2250
FAX	(407) 828-2560	FAX	(407) 828-2560
AGENT AUTHORIZED TO SECURE PERMIT (IF AN AGENT IS USED)		CONSULTANT (IF DIFFERENT FROM AGENT)	
NAME	N/A	NAME	John Riordan, P.E.
COMPANY AND TITLE		COMPANY AND TITLE	Harris Civil Engineers, LLC Project Engineer
ADDRESS		ADDRESS	631 S. Orlando Ave, Suite 300
CITY, STATE, ZIP		CITY, STATE, ZIP	Winter Park, FL 32789
TELEPHONE ( )		TELEPHONE	(407) 629-4777
FAX ( )		FAX	(407) 629-7888

Name of project, including phase if applicable DVC @ Disney's Animal Kingdom LodgeIs this application for part of a multi-phase project? ☐ Yes ☒ NoTotal applicant-owned area contiguous to the project 27,086 acresTotal project area for which a permit is sought 91.62 acresImpervious area for which a permit is sought 14.84 (excluding ponds) acres

What is the total area (metric equivalent for federally funded projects) of work in, on, or over wetlands or other surface waters?

0.96 acres                      square feet 0 hectares 0 square metersNumber of new boat slips proposed N/A

Project location (use additional sheets, if needed)

County(ies) Orange CountySection(s) 34 Township 24 Range 27 ESection(s) 33 Township 24 Range 27 ELand Grant name, if applicable N/ATax Parcel Identification Number N/A 272434000000008Street address, road, or other location 4701 Osceola ParkwayCity, Zip Code if applicable Bay Lake, Florida 32830



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Describe in general terms the proposed project, system, or activity.

**Applicant is proposing to construct a resort project west of the existing Animal Kingdom Lodge. Slightly less than 1 acre of a 10 acre isolated herbaceous wetland will be filled. Existing storm water pond will be relocated and expanded to treat surface water from proposed project. Mitigation will be through the preservation of 4 wetlands, previously permitted for impact.**

If there have been any pre-application meetings, including at the project site, with regulatory staff, please list the date(s), location(s), and names of key staff and project representatives.

N/A.

Please identify by number any MSSW/Wetland resource/ERP/ACOE Permits pending, issued or denied for projects at the location, and any related enforcement actions.

Agency	Date	No./Type of Application	Action Taken
ACOE	12/21/1992	199101901 (IP-GS)	Issued
FDEP	12/08/1992	48,49 & 532039239	Issued
SFWMD	9/10/1998	48-00714-S	Issued

Note: The following information is required only for projects proposed to occur in, on or over wetlands that need a federal dredge and fill permit and/or authorization to use state owned submerged lands and is not necessary when applying solely for an Environment Resource Permit. Please provide the names, addresses and zip codes of property owners whose property directly adjoins the project (excluding applicant). Please attach a plan view showing the owner's names and adjoining property lines. Attach additional sheets if necessary.

1. N/A  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. \_\_\_\_\_  
\_\_\_\_\_  
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2. \_\_\_\_\_  
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4. \_\_\_\_\_  
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\_\_\_\_\_  
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By signing this application form, I am applying, or I am applying on behalf of the applicant, for the permit and any propriety authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit; and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relieve me of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree, or I agree on behalf of my corporation, to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a responsible operation entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

**Lee Schmudde**

Typed/Printed Name of Applicant (If no Agent is used) or Agent (If one is so authorized below)

Signature of Applicant/Agent

Date

**Vice President, Walt Disney World Hospitality & Recreation Corp**

12-1-06

(Corporate Title if applicable)

**AN AGENT MAY SIGN ABOVE ONLY IF THE APPLICANT COMPLETES THE FOLLOWING:**

I hereby designate and authorize the agent listed above to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirement which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Typed/Printed Name of Applicant

Signature of Applicant

Date

(Corporate Title if applicable)

Please Note: The applicant's original signature (not a copy) is required above.**PERSON AUTHORIZING ACCESS TO THE PROPERTY MUST COMPLETE THE FOLLOWING:**

I either own the property described in this application or I have legal authority to allow access to the property, and I consent, after receiving prior notification, to any site visit on the property by agents or personnel from the Department of Environmental Protection, the Water Management District and the U.S. Army Corps of Engineers necessary for the review and inspection of the proposed project specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review and inspection. Further, I agree to provide entry to the project site for such agents or personnel to monitor permitted work if a permit is granted.

**Lee Schmudde**

Typed/Printed Name of Applicant

Signature of Applicant

Date

**Vice President, Walt Disney World Hospitality & Recreation Corp**

(Corporate Title if applicable)

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**DISNEY VACATION CLUB AT  
DISNEY'S ANIMAL KINGDOM  
LODGE ANNEX PARCEL H13**

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**South Florida Water  
Management District  
Environmental Resource  
Permit-General**

Prepared For:

**WALT DISNEY IMAGINEERING  
P.O. Box 10321  
Celebration, FL 34747  
Contact: Tim Warzecha, Sr. Dev. Manager  
(407) 827-4320**

Prepared By:

**HARRIS CIVIL ENGINEERS, LLC  
Contact: John Riordan, P.E.  
631 South Orlando Avenue Suite 300  
Winter Park, Florida 32789  
(407) 629-4777**

HCE # 6012015

December 2006

*Handwritten signature and date:*  
12/07/06

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- Table 3-Accounting System for Tracking SFWMD Permitted Impacts (Rev Table 11), (PBS&J)  
Wetland Impact Maps, (6 Exhibits), (PBS&J)
- Figure 1-Project Location Map
- Figure 2-Site Plan with SFWMD Wetlands
- Figure 3-Proposed Mitigation Wetlands

### **1. Executive Summary**

#### **1.1 Introduction**

- A. Existing Conditions
- B. Proposed Conditions
- C. Primary System
- D. Secondary System

#### **1.2 Design Criteria**

- A. Water Quality Treatment Volume
- B. Water Quantity

#### **1.3 Hydrologic and Hydraulic Modeling**

- A. Method
- B. Curve Numbers
- C. Time of Concentration
- D. Spreader Swales

#### **1.4 Secondary Storm Water Collection System**

#### **1.5 Environmental Considerations**

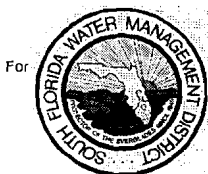
- A. Wildlife Surveys and Agency Comments
- B. Wetland Mitigation
- C. Proposed Modification
- D. Hydroperiod Analysis

### **2. Exhibits**

- Figure 1-Location Map
- Figure 2-Quadrangle Map
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- 3. Spreadsheet Calculations**
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  - Times of Concentration
  - Water Quality Volume
  - Stage-Storage Calculations
- 4. StormCAD Modeling**
- Combined Pipe/Node Reports
  - Hydraulic Grade Profiles
  - Pipe/Node Plan
- 5. AdICPR Modeling**
- Input Report
  - Basin Summary Report
  - Node Minimum and Maximum Report
  - Node Reach Diagram
  - Basin Graph Report
- 6. Geotechnical Report**
- 7. Piezometer Report**
- 8. De-Mucking Report**
- 9. Construction Drawings**



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## SECTION C Environmental Resource Permit Notice of Receipt of Application

This information is required in addition to that required in other sections of the application. Please submit five copies of this notice of receipt of application and all attachments with the other required information. Please submit all information on 8 1/2" x 11" paper

Project Name: Disney Vacation Club at Disney's Animal Kingdom Lodge  
County: Orange  
Owner: Walt Disney World Hospitality and Recreation Corporation  
Applicant: Reedy Creek Improvement District  
Applicant's Address: 1900 Hotel Plaza Blvd, Lake Buena Vista, Fl. 32830

1. Indicate the project boundaries on a USGS quadrangle map. Attach a location map showing the boundary of the proposed activity. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it. **See attached Exhibit.**
2. Provide the names of all wetlands, or other surface waters that would be dredged, filled, impounded, diverted, drained, or would receive discharge (either directly or indirectly), or would otherwise be impacted by the proposed activity, and specify if they are in an Outstanding Florida Water or Aquatic Preserve: **Wetland 18.4 and Wetland 18.13**
3. Attach a depiction (plan and section views), which clearly shows the works or other facilities proposed to be constructed. Use multiple sheets, if necessary. Use a scale sufficient to show the location and type of works. **See attached Exhibit.**
4. Briefly describe the proposed project (such as "construct a deck with boatshelter", "replace two existing culverts", "construct surface water management system to serve 150 acre residential development"):  
**Construct a 472-unit commercial development including roadway, utilities and storm water management system west of the existing Animal Kingdom Lodge.**
5. Specify the acreage of wetlands or other surface waters, if any, that are proposed to be disturbed, filled, excavated, or otherwise impacted by the proposed activity:  
**Filled 0.96 ac; Excavated ac. 0.0; Other impacts 0.0 ac.**
6. Provide a brief statement describing any proposed mitigation for impacts to wetlands and other surface waters (attach additional sheets if necessary):  
**Mitigation for the taking of 0.96 acres for this project will be offset by the preservation of four previously permitted wetlands owned by the same owner.**

### FOR AGENCY USE ONLY

Application Name: \_\_\_\_\_  
Application Number: \_\_\_\_\_  
Office where the application can be inspected: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

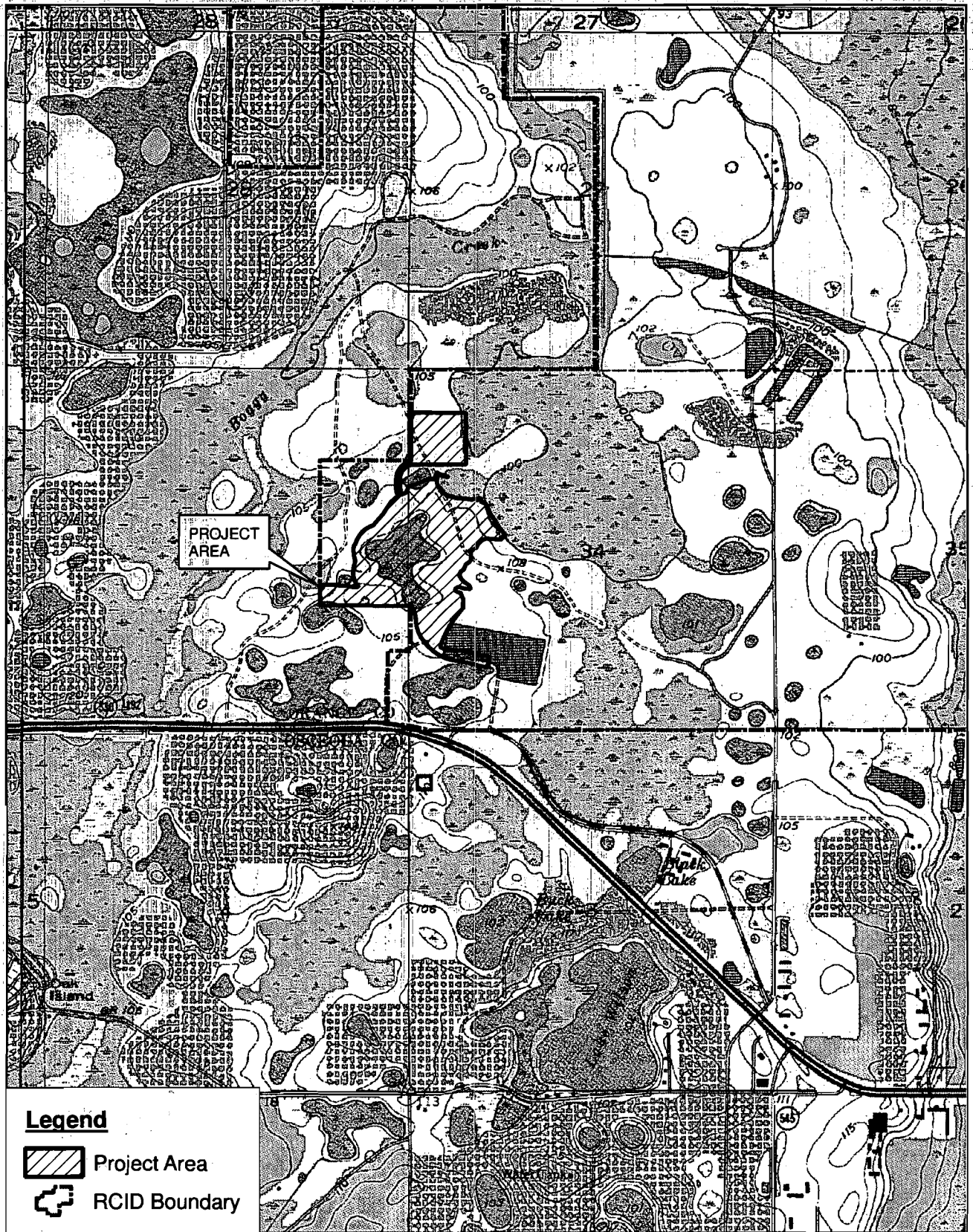


FIGURE  
2

USGS TOPOGRAPHIC MAP  
 DISNEY VACATION CLUB  
 ANIMAL KINGDOM LODGE  
 ORANGE COUNTY, FLORIDA

**HARRIS**

Harris Civil Engineers, LLC



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## SECTION E

### INFORMATION FOR STANDARD GENERAL, INDIVIDUAL AND CONCEPTUAL ENVIRONMENTAL RESOURCE PERMITS FOR PROJECTS NOT RELATED TO A SINGLE FAMILY DWELLING UNIT

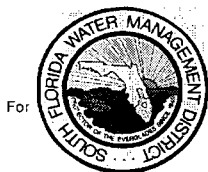
Please provide the information requested below if the proposed project requires either a standard general, individual, or conceptual approval environmental resource permit and is not related to an individual, single family dwelling unit, duplex or quadraplex. The information listed below represents the level of information that is usually required to evaluate an application. The level of information required for a specific project will vary depending on the nature and location of the site and the activity proposed. Conceptual approvals generally do not require the same level of detail as a construction permit. However, providing a greater level of detail will reduce the need to submit additional information at a later date. If an item does not apply to your project, proceed to the next item. **PLEASE SUBMIT ALL INFORMATION ON PAPER NO LARGER THAN 24" X 36"**.

#### I. Site Information

- A. Provide a map(s) of the project area and vicinity delineating USDA/SCS soil types.  
**See attached drainage report.**
- B. Provide recent aerials, legible for photo interpretation with a scale of 1" = 400 ft, or more detailed, with project boundaries delineated on the aerial.  
**See attached drainage report.**
- C. Identify the seasonal high water or mean high tide elevation and normal pool or mean low tide elevation for each on site wetland or surface water, including receiving waters into which runoff will be discharged. Include dates, datum, and methods used to determine these elevations. **The NWL=100.45 and SHWL=100.9 for Wetland 18.4 as established for original Disney Animal Kingdom Lodge permit in 1998. This was field verified and confirmed by Peter Gottfried of Natural Systems Analysts, Inc on 08-23-06. The NWL for the storm water Ponds 302 and 303 are set at 0.05 feet above the adjacent wetland to prevent a draw down of surface or ground water from the wetland. Wetland 18.13 has a NWL=98.50 and a SHWL=98.95.**
- D. Identify the wet season high water tables at the locations representative of the entire project site. Include dates, datum, and methods used to determine these elevations.  
**See attached Geotechnical Report (Tab 6) and Piezometer Report (Tab 7).**

#### II. Environmental Considerations

- A. Provide results of any wildlife surveys that have been conducted on the site, and provide any comments pertaining to the project from the Florida Game and Fresh Water Fish Commission and the U.S. Fish and Wildlife Service.  
**Clearing and grubbing activities for site development may impact gopher tortoise and other listed species habitat. As per special condition #19 of permit # 48-00714-**



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S:

"This permit conceptually authorizes impacting the habitat of such species within development areas, provided that the FGFWFC has confirmed, or hereafter does confirm either by permit, letter or agreement, whichever is required, that impacting the habitat of such species:

A) Does not jeopardize the continued existence of that species; or

B) Has been adequately mitigated pursuant to the rules or criteria of the FGFWFC, utilizing on-site, off-site or other forms of mitigation allowed by the FGFWFC."

The Florida Game and Fresh Water Fish Commission (FGFWFC) issued to Disney Development Company the following permits:

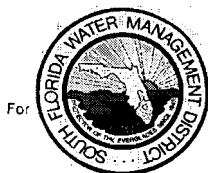
- 1) "Permit for Taking of Gopher Tortoises and Their Burrows", # OSC-4, November 12, 1992
- 2) "Permit for Taking Gopher Frog, Florida Pine Snake, Florida Mouse, and Sherman's Fox Squirrel and Their Nests", # OSC-SSC-1, July 19, 1994
- 3) "Permit For Relocation of Indigo Snake, Short-tailed Snake, and Sand Skink", # OSC-TSR-1, August 9, 1994.

B. Provide a description of how water quantity, quality, hydroperiod, and habitat will be maintained in on-site wetlands and other surface waters that will be preserved or will remain undisturbed. **An average 25-foot buffer (with a minimum of 15-feet) will be maintained around the wetlands. Skimmers will protect oils and floatable object from exiting the storm water ponds. Roof water will be routed directly to the wetlands to help hydrate the wetland during the frequent storms that the ponds will not discharge. See attached drainage report for storm water routing.**

C. Provide a narrative description of any proposed mitigation plans, including purpose, maintenance, monitoring, and construction sequence and techniques, and estimated costs. **The site is located in Orange County, near the western boundary of WDW, within Section 34, Township 27 South, Range 27 East, and at 81o 36' 26" W 28o 21' 16" N. It is a hotel project that is situated directly to the west of the existing Animal Kingdom Lodge. This proposed modification would authorize unavoidable, additional wetland impacts to the isolated, herbaceous Wetland 18.4 which total 0.93 acres and Wetland 18.13 by 0.03 acres offset by the preservation of previously permitted impacts to wetlands 5.10 (impact # 32), 5.12 (impact # 31), 5.14 (impact # 30) and 5.19 (impact # 35). The additional impact is proposed due to site constraints detailed in the following justifications:**

- a. There is a programmatic minimum, 320' distance requirement between buildings for animals on exhibit.
- b. Programmatic requirement of building design elevation (related to slopes that impact wetland).
- c. Programmatic requirements of using existing, AK Lodge savannahs.





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- d. Programmatic requirements of proximity to AK Lodge for joint use of animal care, guest check-in, cast parking, and laundry facilities.
- e. Project feasibility requirement of 80% savannah view.
- f. Avoidance of impacts to the northern wetland except for the outfall structure area of 0.03 acres (No. 18.13).
- g. Emergency ingress / egress, corridors between buildings and the savannah, and access to both sides of the buildings.
- h. Bus and automobile circulation requirements.
- i. Programmatic requirements of parking required by valet service, restaurants, and special events parking.

Site planners have avoided impacts to other wetlands on the site, and minimized the proposed wetland impact to the greatest extent practicable, resulting in less than an acre of impact. Avoidance and minimization measures include the following:

- a. Parking and service corridor located under the building (only half of needed parking spaces could be accommodated).
- b. No more than minimum distance kept between building and Wetland 18.13 to allow animal movement.
- c. Building layout and other site features generally accommodate shape of Wetland 18.4.
- d. Multi-story project to minimize building footprint.
- e. Cast parking at the existing AK Lodge lot.

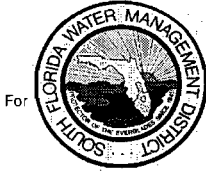
#### PROPOSED MODIFICATION

A total of 0.93 acres of wetland impacts are proposed to Wetland 18.4, a 10.1 acre isolated, emergent marsh surrounded by xeric oak, sand pine, and long leaf pine. The proposed 0.93 acres of impact will occur along the eastern edge of the wetland. Prior to excavation, sheet piling will be installed along the impact edge to prevent any impact to the remaining wetland area.

In addition, Wetland 18.13 will be impacted by 0.03 acres for the construction of the outfall structure and pipe.

We are proposing to offset this 0.96 (Wetland 18.4 is 0.93 acres and Wetland 18.13 is 0.03 acres) acres of impact by using previously permitted impacts. Wetlands 5.10 (impact # 32), 5.12 (impact # 31), 5.14 (impact # 30) and 5.19 (impact # 35) will be preserved and duly noted in Table 11. Wetland impact exhibits are attached'

- D. Describe how boundaries of wetlands or other surface waters were determined. If there has ever been a jurisdictional declaratory statement, a formal wetland determination, a formal determination, a validated informal determination, or a revalidated jurisdictional determination, provide the identifying number.  
**A formal jurisdictional determination was determined under the long term permit**



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coordinated with the Owner. The boundary was determined under a previous permit.

E. Impact Summary Tables:

1. For all projects, complete Table 1, 2 and 3 as applicable.
2. For docking facilities or other structures constructed over wetlands or other surface waters, provide the information requested in Table 4.
3. For shoreline stabilization projects, provide the info requested in Table 5.

III. Plans

Provide clear, detailed plans for the system including specifications, plan (overhead) views, cross sections (with the locations of the cross sections shown on the corresponding plan view), and profile (longitudinal) views of the proposed project. The plans must be signed and sealed by a an appropriate registered professional as required by law. Plans must include a scale and a north arrow. These plans should show the following:

- A. Project area boundary and total land area, including distances and orientation from roads or other land marks;  
**See attached construction plans.**
- B. Existing land use and land cover (acreage and percentages), and on-site natural communities, including wetlands and other surface waters, aquatic communities, and uplands. Use the Florida Land Use Cover & Classification System (FLUCCS)(Level 3) for projects proposed in the South Florida Water Management District, the St. Johns River Water Management District, and the Suwannee River Water Management District and use the National Wetlands Inventory (NWI) for projects proposed in the Southwest Florida Water Management District. Also identify each community with a unique identification number which must be consistent in all exhibits.  
**See attached construction plans.**
- C. The existing topography extending at least 100 feet off the project area, and including adjacent wetlands and other surface waters. All topography shall include the location and a description of known benchmarks, referenced to NGVD. For systems waterward of the mean high water (MHW) or seasonal high water lines, show water depths, referenced to mean low water (MLW) in tidal areas or seasonal low water in non-tidal areas, and list the range between MHW and MLW. For docking facilities, indicate the distance to, location of, and depths of the nearest navigational channel and access routes to the channel.  
**See attached construction plans.**
- D. If the project is in the known flood plain of a stream or other water course, identify the following: 1) flood plain boundary and approximate flooding elevations; and 2) the 100-year flood elevation and floodplain boundary of any lake, stream or other watercourse located on or adjacent to the site;  
**See the FEMA exhibit. There are no established elevations for the Zone A in the**



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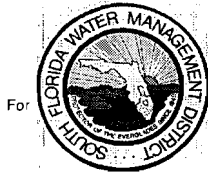
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area of the proposed Animal Building AP-88. The finished floor is set at 104.5 or approx. 3-feet above the existing grade.

- E. The boundaries of wetlands and other surface waters within the project area. Distinguish those wetlands and other surface waters that have been delineated by any binding jurisdictional determination;  
**See attached construction plans.**
- F. Proposed land use, land cover and natural communities (acreage and percentages), including wetlands and other surface waters, undisturbed uplands, aquatic communities, impervious surfaces, and water management areas. Use the same classification system and community identification number used in III (B) above.  
**See attached drainage report and construction plans.**
- G. Proposed impacts to wetlands and other surface waters, and any proposed connections/outfalls to other surface waters or wetlands;  
**See attached construction plans.**
- H. Proposed buffer zones;  
**An average 25-ft wetland buffer is maintained with a minimum of 15-ft. See Wetland Exhibit showing the hatched locations where the buffers were reduced and where the buffers were increased.**
- I. Pre and post-development drainage patterns and basin boundaries showing the direction of flows, including any off-site runoff being routed through or around the system; and connections between wetlands and other surface waters;  
**See attached pre and post development basin maps.**
- J. Location of all water management areas with details of size, side slopes, and designed water depths;  
**See attached construction plans.**
- K. Location and details of all water control structures, control elevations, any seasonal water level regulation schedules; and the location and description of benchmarks (minimum of one benchmark per structure);  
**See attached construction plans.**
- L. Location, dimensions and elevations of all proposed structures, including docks, seawalls, utility lines, roads, and buildings;  
**See attached construction plans.**
- M. Location, size, and design capacity of the internal water management facilities;  
**See attached construction plans.**
- N. Rights-of-way and easements for the system, including all on-site and off-site areas to be reserved for water management purposes, and rights-of-way and easements for the existing drainage system, if any;



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**See attached construction plans.**

- O. Receiving waters or surface water management systems into which runoff from the developed site will be discharged;  
**See attached construction plans.**
- P. Location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all permanent control measures to be implemented in post-development conditions;  
**See attached construction plans.**
- Q. Location, grading, design water levels, and planting details of all mitigation areas;  
**See attached construction drawings**
- R. Site grading details, including perimeter site grading;  
**See attached construction plans.**
- S. Disposal site for any excavated material, including temporary and permanent disposal sites;  
**The contractor plans to use the excavated material from the proposed storm water ponds to balance the site.**
- T. Dewatering plan details;  
**A short term SFWMD dewatering permit will be designed with input from the civil contractor and applied for prior to construction.**
- U. For marina facilities, locations of any sewage pumpout facilities, fueling facilities, boat repair and maintenance facilities, and fish cleaning stations;  
**N/A**
- V. Location and description of any nearby existing offsite features which might be affected by the proposed construction or development such as stormwater management ponds, buildings or other structures, wetlands or other surface waters.  
**See attached construction drawings.**
- W. For phased projects, provide a master development plan.  
**This is a single phased project.**

#### IV. Construction Schedule and Techniques

Provide a construction schedule, and a description of construction techniques, sequencing and equipment. This information should specifically include the following:

- A. Method for installing any pilings or seawall slabs;  
**See construction drawing details for sheet pile wall construction.**
- B. Schedule of implementation of a temporary or permanent erosion and turbidity control measures;



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**Silt Fence shown on construction plans to be installed prior to clearing and grubbing and to remain until sodding is complete.**

- C. For projects that involve dredging or excavation in wetlands or other surface waters, describe the method of excavation, and the type of material to be excavated;  
**There will be muck excavated in the wetland area that is being impacted. The disposal of this undesired material will be placed beneath a layer of sand at the bottom of and the side slopes of the proposed storm water ponds. Refer to De-Mucking Report (Tab 8).**
- D. For projects that involve fill in wetlands or other surface waters, describe the source and type of fill material to be used. For shoreline stabilization projects that involve the installation of riprap, state how these materials are to be placed, (i.e., individually or with heavy equipment) and whether the rocks will be underlain with filter cloth;  
**Once the muck is removed from the wetland, a clean stable material will be brought in and compacted with heavy equipment. Refer to the De-Mucking Report (Tab 8).**
- E. If dewatering is required, detail the dewatering proposal including the methods that are proposed to contain the discharge, methods of isolating dewatering areas, and indicate the period dewatering structures will be in place (**Note a consumptive use or water use permit may be required**);  
**A dewatering permit will be submitted. The method proposed will be sock drains around the perimeter of the excavated area and the filtered/collected groundwater will be routed through the outfall pipe and structure to Wetland 18.13.**
- F. Methods for transporting equipment and materials to and from the work site. If barges are required for access, provide the low water depths and draft of the fully loaded barge; and  
**Access to site will be from existing roadways.**
- G. Demolition plan for any existing structures to be removed;  
**See construction drawings for the existing drainage system to be demolished.**
- H. Identify the schedule and party responsible for completing monitoring, record drawings, and as-built certifications for the project when completed.  
**The Owner, WDW, will maintain records and drawings and have a full time inspector on-site during construction. Harris Civil Engineers will conduct periodic construction observations.**

#### V. Drainage Information

- A. Provide pre-development and post-development drainage calculations, signed and sealed by an appropriate registered professional, as follows:
  - 1. Runoff characteristics, including area, runoff curve number or runoff coefficient, and time of concentration for each drainage basin;  
**See attached drainage report.**
  - 2. Water table elevations (normal and seasonal high) including aerial extent and



For

magnitude of any proposed water table drawdown;  
**See attached drainage report.**

3. Receiving water elevations (normal, wet season, design storm);  
**See attached drainage report.**
  4. Design storms used including rainfall depth, duration, frequency, and distribution;  
**See attached drainage report.**
  5. Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);  
**See attached drainage report.**
  5. Stage-storage computations for any area such as a reservoir, close basin, detention area, or channel, used in storage routing;  
**See attached drainage report.**
  6. Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;  
**See attached drainage report.**
  7. Flood routings through on-site conveyance and storage areas;  
**See attached drainage report.**
  8. Water surface profiles in the primary drainage system for each required design storm event(s);  
**See attached drainage report.**
  9. Runoff peak rates and volumes discharged from the system for each required design storm event(s), and  
**See attached drainage report.**
  10. Tail water history and justification (time and elevation);  
**See attached drainage report.**
  11. Pump specifications and operating curves for range of possible operating conditions (if used in system).  
**N/A**
- B. Provide the results of any percolation tests, where appropriate, and soil borings that are representative of the actual site conditions;  
**See attached geotechnical report.**
- C. Provide the acreage, and percentages of the total project, of the following:
1. impervious surfaces, excluding wetlands,  
**24.66 acres (27%)**



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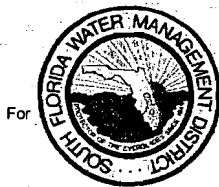
ORLANDO SERVICE CENTER

magnitude of any proposed water table drawdown;

**See attached drainage report.**

3. Receiving water elevations (normal, wet season, design storm);  
**See attached drainage report.**
4. Design storms used including rainfall depth, duration, frequency, and distribution;  
**See attached drainage report.**
5. Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);  
**See attached drainage report.**
5. Stage-storage computations for any area such as a reservoir, close basin, detention area, or channel, used in storage routing;  
**See attached drainage report.**
6. Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;  
**See attached drainage report.**
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**See attached drainage report.**
8. Water surface profiles in the primary drainage system for each required design storm event(s);  
**See attached drainage report.**
9. Runoff peak rates and volumes discharged from the system for each required design storm event(s); and  
**See attached drainage report.**
10. Tail water history and justification (time and elevation);  
**See attached drainage report.**
11. Pump specifications and operating curves for range of possible operating conditions (if used in system).  
**N/A**

- B. Provide the results of any percolation tests, where appropriate, and soil borings that are representative of the actual site conditions;  
**See attached geotechnical report.**
- C. Provide the acreage, and percentages of the total project, of the following:
  1. impervious surfaces, excluding wetlands,  
**14.8 acres (16%)**

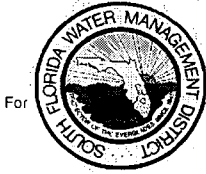


2. pervious surfaces (green areas, not including wetlands),  
**52.44 acres (57%)**
  3. lakes, canals, retention areas, other open water areas,  
**5.35 acres (6%)**
  4. wetlands;  
**9.17 acres (10%)**
- D. Provide an engineering analysis of floodplain storage and conveyance (if applicable), including:
1. Hydraulic calculations for all proposed traversing works;  
**N/A**
  2. Backwater water surface profiles showing upstream impact of traversing works;  
**N/A**
  3. Location and volume of encroachment within regulated floodplain(s); and  
**N/A**
  4. Plan for compensating floodplain storage, if necessary, and calculations required for determining minimum building and road flood elevations.  
**N/A**
- E. Provide an analysis of the water quality treatment system including:
1. A description of the proposed stormwater treatment methodology that addresses the type of treatment, pollution abatement volumes, and recovery analysis; and  
**See attached drainage report. There are 2 proposed wet detention storm water ponds.**
  2. Construction plans and calculations that address stage-storage and design elevations, which demonstrate compliance with the appropriate water quality treatment criteria.  
**See attached construction plans.**
- E. Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, a description of the program, input and output data, two diskette copies, if available, and justification for model selection.  
**See attached drainage report.**

## VI. Operation and Maintenance and Legal Documentation

- A. Describe the overall maintenance and operation schedule for the proposed system.  
**Owner, WDW, will continue to maintain temporary construction access road.**





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2. pervious surfaces (green areas, not including wetlands),  
**61.3 acres (67%)**
  3. lakes, canals, retention areas, other open water areas,  
**5.35 acres (6%)**
  4. wetlands;  
**10.1 acres (11%)**
- D. Provide an engineering analysis of floodplain storage and conveyance (if applicable), including:
1. Hydraulic calculations for all proposed traversing works;  
**N/A**
  2. Backwater water surface profiles showing upstream impact of traversing works;  
**N/A**
  3. Location and volume of encroachment within regulated floodplain(s); and  
**N/A**
  4. Plan for compensating floodplain storage, if necessary, and calculations required for determining minimum building and road flood elevations.  
**N/A**
- E. Provide an analysis of the water quality treatment system including:
1. A description of the proposed stormwater treatment methodology that addresses the type of treatment, pollution abatement volumes, and recovery analysis; and  
**See attached drainage report. There are 2 proposed wet detention storm water ponds.**
  2. Construction plans and calculations that address stage-storage and design elevations, which demonstrate compliance with the appropriate water quality treatment criteria.  
**See attached construction plans.**
- E. Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, a description of the program, input and output data, two diskette copies, if available, and justification for model selection.  
**See attached drainage report.**

## VI. Operation and Maintenance and Legal Documentation

- A. Describe the overall maintenance and operation schedule for the proposed system.  
**Owner, WDW, will continue to maintain temporary construction access road.**



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- B. Identify the entity that will be responsible for operating and maintaining the system in perpetuity if different than the permittee, a draft document enumerating the enforceable affirmative obligations on the entity to properly operate and maintain the system for its expected life, and documentation of the entity's financial responsibility for long term maintenance. If the proposed operation and maintenance entity is not a property owner's association, provide proof of the existence of an entity, or the future acceptance of the system by an entity which will operate and maintain the system. If a property owner's association is the proposed operation and maintenance entity, provide copies of the articles of incorporation for the association and copies of the declaration, restrictive covenants, deed restrictions, or other operational documents that assign responsibility for the operation and maintenance of the system. Provide information ensuring the continued adequate access to the system for maintenance purposes. Before transfer of the system to the operating entity will be approved, the permittee must document that the transferee will be bound by all terms and conditions of the permit.  
**Same as permittee, WDW.**
- C. Provide copies of all proposed conservation easements, storm water management system easements, property owner's association documents, and plats for the property containing the proposed system.  
**N/A**
- D. Provide indication of how water and waste water service will be supplied. Letters of commitment from off-site suppliers must be included.  
**Water and Wastewater utilities will be provided by WDW.**
- E. Provide a copy of the boundary survey and/or legal description and acreage of the total land area of contiguous property owned/controlled the applicant.  
**See attached construction plans.**

## VII. Water Use

- A. Will the surface water system be used for water supply, including landscape irrigation, or recreation.  
**N/A**
- B. If a Consumptive Use or Water Use permit has been issued for the project, state the permit number.  
**N/A**
- C. If no Consumptive Use or Water Use permit has been issued for the project, indicate if such a permit will be required and when the application for a permit will be submitted.  
**N/A**
- D. Indicate how any existing wells located within the project site will be utilized or abandoned.  
**N/A**

TABLE 1  
 Project Impact Summary

WL & SW ID	WL & SW TYPE	WL & SW SIZE (ac.) ON SITE	WL & SW ACRES NOT IMPACTED	PERMANENT IMPACTS TO WL & SW		TEMPORARY IMPACTS TO WL & SW		MITIGATION ID
				IMPACT SIZE (acres)	IMPACT CODE	IMPACT SIZE (acres)	IMPACT CODE	
18.4	641	10.1	9.17	0.93	F	0		PERMITTED WETLAND IMPACTS
18.13	865	161.3	161.27	0.03	D	0		PERMITTED WETLAND IMPACTS

WL = Wetland; SW = Surface water; ID = Identification number, letter, etc.

**Wetland Type:** Use an established wetland classification system and, in the comments section below, indicate which classification system is being used.

**Impact Code (Type):** D = dredge; F = fill; H = change hydrology; S = shading; C = clearing; O = other. Indicate the final impact if more than one impact type is proposed in a given area. For example, show F only for an area that will first be demucked and then backfilled.

**Note:** Multiple entries per cell are not allowed, except in the "Mitigation ID" column. Any given acreage of wetland should be listed in one row only, such that the total of all rows equals the project total for a given category (column). For example, if Wetland No. 1 includes multiple wetland types and multiple impact codes are proposed in each type, then each proposed impact in each wetland type should be shown on a separate row, while the size of each wetland type found in Wetland No. 1 should be listed in only one row.

Comments: \_\_\_\_\_

TABLE 2  
 ON-SITE MITIGATION SUMMARY

MITIGATION ID	CREATION		RESTORATION		ENHANCEMENT		WETLAND PRESERVE		UPLAND PRESERVE		OTHER	
	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE
WETLAND 5.12							0.23	641				
WETLAND 5.10							0.29	641				
WETLAND 5.14							0.21	617				
WETLAND 5.19							0.23	641				
PROJECT TOTALS:							0.96					

CODES (multiple entries per cell not allowed): Target Type or Type = target or existing habitat type from an established wetland classification system or land use classification for non-wetland mitigation

COMMENTS: PROPOSED WETLAND PRESERVATION IS FOR WETLANDS PREVIOUSLY PERMITTED FOR IMPACT

Table 2. Cont.

Animal Kingdom Lodge

Wetland System Number	O.U. Number	Impact Number	Landuse	FLUCCS Description	Permitted Wetland Impact per O.U.	Actual Impacted Wetland Acreage *	Remaining Wetland or Waterbody Acreage Permitted for Impact	Percent Remaining Wetland or Waterbody Acreage Permitted for Impact
5.12	4	35	6412	Freshwater Marshes	0.23	0.23	0.00	0.0%
5.10	4	36	6412	Freshwater Marshes	0.29	0.29	0.00	0.0%
5.14	4	32	6174	Mixed Wetland Hardwoods	0.31	0.21	0.10	32.3%
5.19	4	40	6414	Freshwater Marshes	0.23	0.23	0.00	0.0%
<b>Total</b>					1.06	0.96	0.10	

\* This column represents the amount of each wetland being used for mitigation. There will be no construction (impact) on these wetlands.

Only 5.14 is being partially preserved. The remaining 0.10-acres will be available for mitigation for future projects.

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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REPORT DATE: 12/8/2006

H-13

Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
<b>1A</b>		<b>TOTAL</b>		<b>0.00</b>	<b>0.00</b>	<b>0.48</b>	<b>0.00</b>	0.48	100.0%	
	1	Wetland 1.7	563	-		0.48		0.48	100.0%	
<b>1B</b>		<b>TOTAL</b>		<b>6.53</b>	<b>6.53</b>	<b>0.00</b>	<b>0.00</b>	0.00	0.0%	
960903-7	4	Wetland 1.6H2	6182	0.05	0.05	-		0.00	0.0%	12/12/1996
960903-7	4	Wetland 1.6H3	6213	1.18	1.18	-		0.00	0.0%	12/12/1996
960903-7	4	Wetland 1.6H1	6303	5.30	5.30	-		0.00	0.0%	12/12/1996
<b>1</b>		<b>TOTAL</b>		<b>0.45</b>	<b>0.00</b>	<b>0.08</b>	<b>0.00</b>	0.53	100.0%	
	2A	Wetland 1.3B	513	-		0.06		0.06	100.0%	
	2B	Wetland 1.3A	513	-		0.02		0.02	100.0%	
	3	Wetland 1.6F	6304	0.23		-		0.23	100.0%	
	5	Wetland 1.6E	6303	0.01		-		0.01	100.0%	
	6	Wetland 1.6D	6304	0.21		-		0.21	100.0%	
<b>2A</b>		<b>TOTAL</b>		<b>1.53</b>	<b>0.00</b>	<b>0.09</b>	<b>0.00</b>	1.62	100.0%	
	155	Wetland 12.1A2	6303	1.53		-		1.53	100.0%	
	163	Wetland 12.3	513	-		0.09		0.09	100.0%	
<b>2</b>		<b>TOTAL</b>		<b>13.34</b>	<b>4.46</b>	<b>0.39</b>	<b>0.29</b>	8.98	65.4%	
	135	Wetland 13.5A	6414	0.23		-		0.23	100.0%	
	135	Wetland 13.5B	6303	1.45		-		1.45	100.0%	
	143	Wetland 11.15B	6254	4.53		-		4.53	100.0%	
940310-3&970218-14	148	Wetland 11.15A	6254	7.13	4.46	-		2.67	37.4%	N/A & 5/15/97
950324-2	154	Wetland 11.16	513	-		0.29	0.29	0.00	0.0%	
	163	Wetland 12.3	513	-		0.09		0.09	100.0%	
	165	Wetland 13.6A	523	-		0.01		0.01	100.0%	
<b>3</b>		<b>TOTAL</b>		<b>4.48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	4.48	100.0%	
	9	Wetland 3.2A	6303	1.38		-		1.38	100.0%	
	10A	Wetland 3.3B	6303	0.49		-		0.49	100.0%	
	10A	Wetland 3.3C	6412	0.70		-		0.70	100.0%	
	10B	Wetland 3.2B	6303	0.29		-		0.29	100.0%	
	14	Wetland 3.1	6303	0.49		-		0.49	100.0%	
	21	Wetland 3.3A	6182	1.13		-		1.13	100.0%	
<b>4</b>		<b>TOTAL</b>		<b>46.08</b>	<b>1.01</b>	<b>36.76</b>	<b>0.00</b>	81.83	98.8%	
	26	Wetland 5.4	6172	2.27		-		2.27	100.0%	
	27A	Wetland 5.18C	513	-		0.21		0.21	100.0%	
	27A	Wetland 5.53	6304	0.54		-		0.54	100.0%	

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

Page 2 of 28  
REPORT DATE: 12/8/2006

Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.									
1	2	3	4	5	6	7	8	10	11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date
	27A	Wetland 5.18D	516	-		0.95		0.95 100.0%	
	27A	Wetland 5.18B	513	-		2.81		2.81 100.0%	
	27A	Wetland 5.18C	513	-		2.98		2.98 100.0%	
	27A	Wetland 5.18A	524	-		9.47		9.47 100.0%	
	27A	Wetland 5.2B	6304	24.91		-		24.91 100.0%	
	27B	Wetland 5.6	524	-		7.05		7.05 100.0%	
	27C	Wetland 5.5	6304	1.31		-		1.31 100.0%	
	27C	Wetland 5.7	563	-		2.09		2.09 100.0%	
	27D	Wetland 5.8	563	-		2.81		2.81 100.0%	
	31	Wetland 5.13	6174	1.92		-		1.92 100.0%	
	33	Wetland 5.15	563	-		2.32		2.32 100.0%	
	37	Wetland 5.11	6412	0.14		-		0.14 100.0%	
	39	Wetland 5.34A	6302	0.59		-		0.59 100.0%	
	42	Wetland 5.34C	6302	0.24		-		0.24 100.0%	
	47	Wetland 5.23	6304	0.28		-		0.28 100.0%	
	48	Wetland 5.24	6174	0.15		-		0.15 100.0%	
	500	Wetland 5.63	524	-		2.70		2.70 100.0%	
	501	Wetland 5.64	524	-		0.13		0.13 100.0%	
	504	Wetland 5.62	524	-		0.61		0.61 100.0%	
	505	Wetland 5.65	524	-		0.09		0.09 100.0%	
	506	Wetland 5.61	524	-		0.51		0.51 100.0%	
	507	Wetland 5.60	524	-		2.03		2.03 100.0%	
	712	Wetland 1.5	630	2.93		-		2.93 100.0%	tion to offset impact at the F
	713	Wetland 1.5	630	0.46		-		0.46 100.0%	
	714	Wetland 1.5	630	0.13		-		0.13 100.0%	
	715	Wetland 5.67	630	0.87		-		0.87 100.0%	
	716	Wetland 5.2A	630	7.70		-		7.70 100.0%	
	723	Wetland 5.34A	6302	0.02		-		0.02 100.0%	
	724	Wetland 5.34A	6302	0.28		-		0.28 100.0%	
	725	Wetland 5.34A	6302	0.06		-		0.06 100.0%	

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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REPORT DATE: 12/8/2006  
H-13

Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
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	726	Wetland 5.34C	6302	0.07		-		0.07	100.0%	
	727	Wetland 5.34C	6302	0.05		-		0.05	100.0%	
	728	Wetland 5.34C	6302	0.05		-		0.05	100.0%	
	862	Wetland 1.5	630	0.05	0.05	-		0.00	0.0%	
<b>7A</b>		<b>TOTAL</b>		<b>7.71</b>	<b>0.00</b>	<b>0.10</b>	<b>0.00</b>	<b>7.81</b>	<b>100.0%</b>	
	41	Wetland 3.4	522	-		0.01		0.01	100.0%	
	41	Wetland 7.1G	6412	0.55		-		0.55	100.0%	
	43	Wetland 7.1J	6173	0.19		-		0.19	100.0%	
	46A	Wetland 7.1B2	6304	6.77		-		6.77	100.0%	
	46B	Wetland 7.6B	513	-		0.09		0.09	100.0%	
	730	Wetland 7.1I	6303	0.20		-		0.20	100.0%	
<b>7B</b>		<b>TOTAL</b>		<b>10.26</b>	<b>0.00</b>	<b>0.24</b>	<b>0.00</b>	<b>10.50</b>	<b>100.0%</b>	
	50	Wetland 7.14A	6302	0.62		-		0.62	100.0%	
	51	Wetland 7.8	6212	3.95		-		3.95	100.0%	
	52	Wetland 7.24	621	0.08		-		0.08	100.0%	
	54	Wetland 7.9	6212	1.68		-		1.68	100.0%	
	55	Wetland 7.10	6302	0.71		-		0.71	100.0%	
	57	Wetland 7.11B	6302	0.30		-		0.30	100.0%	
	57	Wetland 7.11A	6212	2.23		-		2.23	100.0%	
	731	Wetland 7.14B	516	-		0.24		0.24	100.0%	
	733	Wetland 7.14A	6302	0.09		-		0.09	100.0%	
	734	Wetland 7.14A	6302	0.08		-		0.08	100.0%	
	736	Wetland 7.14A	6302	0.16		-		0.16	100.0%	
	737	Wetland 7.14A	6302	0.04		-		0.04	100.0%	
	738	Wetland 7.14A	6302	0.19		-		0.19	100.0%	
	740	Wetland 7.14A	6302	0.13		-		0.13	100.0%	
<b>8A</b>		<b>TOTAL</b>		<b>0.12</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>	<b>100.0%</b>	
	66	Wetland 30.1A1	6302	0.03		-		0.03	100.0%	
	66	Wetland 30.1A1	6302	0.09		-		0.09	100.0%	
<b>8B</b>		<b>TOTAL</b>		<b>13.62</b>	<b>0.00</b>	<b>0.55</b>	<b>0.00</b>	<b>14.17</b>	<b>100.0%</b>	
	61	Wetland 7.13A	6172	0.25		-		0.25	100.0%	
	61	Wetland 7.13B	6412	0.40		-		0.40	100.0%	
	61	Wetland 7.12	6302	3.85		-		3.85	100.0%	
	66	Wetland 30.1A1	6302	3.53		-		3.53	100.0%	



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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.									
1	2	3	4	5	6	7	8	10	11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date
	74	Wetland 7.15C1	6302	0.29		-		0.29	100.0%
	74	Wetland 7.15B	6302	5.27		-		5.27	100.0%
	77	Wetland 11.3	513	-		0.18		0.18	100.0%
	79	Wetland 7.19	6303	0.03		-		0.03	100.0%
	81	Wetland 30.2	513	-		0.36		0.36	100.0%
	742	Wetland 11.3	513	-		0.01		0.01	100.0%
9		TOTAL		8.16	0.00	0.27	0.11	8.32	98.7%
	62	Wetland 11.1	6412	0.81		-		0.81	100.0%
	65	Wetland 11.2	6303	5.33		-		5.33	100.0%
	67	Wetland 11.6A1	6303	0.01		-		0.01	100.0%
	67	Wetland 11.6G	625	0.19		-		0.19	100.0%
	68	Wetland 11.6A1	6303	1.26		-		1.26	100.0%
931122-5	69	Wetland 14.18C	513	-		0.11	0.11	0.00	0.0%
	71	Wetland 11.6A1	6303	0.02		-		0.02	100.0%
	75A	Wetland 11.6A1	6303	0.54		-		0.54	100.0%
	75B	Wetland 11.3	513	-		0.16		0.16	100.0%
10A		TOTAL		0.19	0.00	0.00	0.00	0.19	100.0%
	739	Wetland 9.105	6303	0.19		-		0.19	100.0%
10C		TOTAL		3.77	1.65	0.00	0.00	2.12	56.2%
	64	Wetland 9.4	6303	3.77	1.65	-		2.12	56.2%
11		TOTAL		5.29	0.00	0.18	0.00	5.47	100.0%
	70	Wetland 9.14F	6303	1.13		-		1.13	100.0%
	72	Wetland 9.16E	513	-		0.18		0.18	100.0%
	73	Wetland 9.13A	6302	0.02		-		0.02	100.0%
	73	Wetland 9.13B	6303	0.07		-		0.07	100.0%
	73	Wetland 9.13A	6302	0.35		-		0.35	100.0%
	73	Wetland 9.13B	6303	1.39		-		1.39	100.0%
	73	Wetland 9.13A	6302	2.33		-		2.33	100.0%
13		TOTAL		14.85	2.67	3.90	3.23	12.85	68.5%
	104	Wetland 8.1A2	6302	0.21		-		0.21	100.0%
	104	Wetland 8.1A3	643	0.45	0.26	-		0.19	42.2%
	104	Wetland 8.1A4	630	1.10	0.52	-		0.58	52.7%
	107	Wetland 8.5	6413	1.38	1.38	-		0.00	0.0%
	108	Wetland 8.1A1	6302	3.81		-		3.81	100.0%

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
	109	Wetland 8.21A	6303	0.01		-		0.01	100.0%	
	109	Wetland 8.21B	6213	0.05		-		0.05	100.0%	
	109	Wetland 8.20	6303	0.26		-		0.26	100.0%	
	109	Wetland 1.1A	513	-		0.44		0.44	100.0%	
	109	Wetland 8.28	618	2.70		-		2.70	100.0%	
970430-13	117	Wetland 8.8	524	-		3.23	3.23	0.00	0.0%	8/12/1997
	127	Wetland 8.9A	6212	0.26		-		0.26	100.0%	
	127	Wetland 8.9B	6182	0.48	0.18	-		0.30	62.5%	
	131	Wetland 8.11	6302	0.99	0.09	-		0.90	90.9%	
	136	Wetland 8.12	6302	1.05		-		1.05	100.0%	
	149	Wetland 8.1E3	6302	0.28	0.24	-		0.04	14.3%	
	522	Wetland 8.1A1	6302	1.23		-		1.23	100.0%	
	523	Wetland 8.1A6	516	-		0.23		0.23	100.0%	
	524	Wetland 8.1A4	630	0.10		-		0.10	100.0%	
	525	Wetland 8.1A4	630	0.08		-		0.08	100.0%	
	526	Wetland 8.1A4	630	0.04		-		0.04	100.0%	
	527	Wetland 8.1A4	630	0.07		-		0.07	100.0%	
	529	Wetland 8.1A4	630	0.30		-		0.30	100.0%	
14		TOTAL		2.16	0.00	0.07	0.00	2.23	100.0%	
	108	Wetland 8.1A1	6302	0.01		-		0.01	100.0%	
	126	Wetland 8.9B	6182	0.17		-		0.17	100.0%	
	126	Wetland 8.9A	6212	0.43		-		0.43	100.0%	
	127	Wetland 8.9B	6182	0.05		-		0.05	100.0%	
	127	Wetland 8.9C	6212	0.09		-		0.09	100.0%	
	127	Wetland 8.9A	6212	0.09		-		0.09	100.0%	
	130	Wetland 8.10	6182	0.29		-		0.29	100.0%	
	756	Wetland 8.23	625	0.08		-		0.08	100.0%	
	757	Wetland 1.1A	513	-		0.07		0.07	100.0%	
	757	Wetland 8.24	630	0.12		-		0.12	100.0%	
	760	Wetland 8.25	630	0.05		-		0.05	100.0%	
	761	Wetland 8.13	6303	0.46		-		0.46	100.0%	
	765	Wetland 8.1E2	6172	0.32		-		0.32	100.0%	
15		TOTAL		9.15	10.04	21.62	21.62	-0.89	-2.9%	
980427-3	200	Wetland 18.30	6173	0.12	0.12	-		0.00	0.0%	8/25/1998

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10		11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)		Construction Permit Issue Date
980427-3	201	Wetland 18.9	6213	0.50	0.50	-		0.00	0.0%	8/25/1998
980427-3	202	Wetland 18.6	6412	2.08	2.08	-		0.00	0.0%	8/25/1998
980427-3	203	Wetland 18.11	6413	1.33	1.33	-		0.00	0.0%	8/25/1998
980427-3	205	Wetland 18.10	6413	0.51	0.51	-		0.00	0.0%	8/25/1998
980427-3	210	Wetland 18.12B	563	-		20.29	20.29	0.00	0.0%	8/25/1998
980427-3	217	Wetland 18.7A	6412	0.79	0.79	-		0.00	0.0%	8/25/1998
980427-3	219	Wetland 18.12A	563	-		1.33	1.33	0.00	0.0%	8/25/1998
980427-3	222	Wetland 18.8	6412	2.82	2.82	-		0.00	0.0%	8/25/1998
	774	Wetland 18.13	6173	0.07	0.00			0.07	100.0%	
	861	Wetland 18.7A	641	0.93	0.93			0.00	0.0%	
	864	Wetland 18.4	641	0.00	0.00			0.00	0.0%	
	865	Wetland 18.3	6173	0.00	0.00			0.00	0.0%	
<b>16</b>		<b>TOTAL</b>		<b>26.21</b>	<b>25.52</b>	<b>0.78</b>	<b>0.78</b>	<b>0.69</b>	<b>2.6%</b>	
940516-1	187	Wetland 18.15	6412	0.77	0.77	-		0.00	0.0%	10/13/1994
	188	Wetland 18.13	6173	0.07		-		0.07	100.0%	
940516-1	192	Wetland 18.16	6412	1.42	1.42	-		0.00	0.0%	10/13/1994
940516-1	193	Wetland 18.22	6412	4.55	4.55	-		0.00	0.0%	10/13/1994
940516-1	195	Wetland 18.17	6412	2.33	2.33	-		0.00	0.0%	10/13/1994
940516-1	196	Wetland 18.31	6412	0.47	0.47	-		0.00	0.0%	10/13/1994
940516-1	198	Wetland 18.13	6173	0.32	0.22	-		0.10	31.3%	10/13/1994
940516-1	198	Wetland 18.18	6412	6.25	6.25	-		0.00	0.0%	10/13/1994
940516-1	199	Wetland 18.21	6412	1.91	1.91	-		0.00	0.0%	10/13/1994
940516-1	211	Wetland 18.20	6412	0.79	0.79	-		0.00	0.0%	10/13/1994
940516-1	212	Wetland 18.25A	6413	0.14	0.14	-		0.00	0.0%	10/13/1994
940516-1	212	Wetland 18.25B	563	-		0.44	0.44	0.00	0.0%	10/13/1994
940930-17	214	Wetland 18.37A	6303	0.88	0.88	-		0.00	0.0%	
	215	Wetland 18.13	6173	0.03		-		0.03	100.0%	
940516-1	218	Wetland 18.26	6412	1.87	1.87	-		0.00	0.0%	10/13/1994
940516-1, 940930-17, 960322-10	221	Wetland 18.37B	641	0.13	0.13	-		0.00	0.0%	10/13/1994
940516-1, 940930-17, 960322-10	221	Wetland 18.37A	6303	0.37	0.12	-		0.25	67.6%	10/13/1994
	228	Wetland 17.8A	6302	0.04		-		0.04	100.0%	
940516-1	766	Wetland 8.14F	618	0.20	0.20	-		0.00	0.0%	10/13/1994
940516-1	768	Wetland 8.14E	643	0.12	0.12	-		0.00	0.0%	10/13/1994
	769	Wetland 18.13	6173	0.20		-		0.20	100.0%	

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Revised Table 11 (D.3-2R), SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	9	10	11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Wetlands Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Waterbodies Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
940516-1	772	Wetland 18.38	6432	2.87	2.87	-	-	0.00	0.0%	10/13/1994
940516-1	773	Wetland 18.23	6412	0.22	0.22	-	-	0.00	0.0%	10/13/1994
940516-1	776	Wetland 18.35	643	0.26	0.26	-	-	0.00	0.0%	10/13/1994
940516-1	801	Wetland 8.14A	513	-	-	0.15	0.15	0.00	0.0%	10/13/1994
940516-1	802	Wetland 8.14B	513	-	-	0.19	0.19	0.00	0.0%	10/13/1994
17		TOTAL		0.16	0.15	0.00	0.00	0.01	6.3%	
	188	Wetland 18.13	6173	0.01	-	-	-	0.01	100.0%	
94-0510-5	208	Wetland 18.13	6173	0.15	0.15	-	-	0.00	0.0%	8/11/1994
18		TOTAL		3.65	2.90	0.24	0.24	0.75	19.3%	
	149	Wetland 8.1E1	6212	0.15	0.12	-	-	0.03	20.0%	
	149	Wetland 8.1E3	6302	0.17	0.13	-	-	0.04	23.5%	
	149	Wetland 8.1E3	6302	0.18	0.14	-	-	0.04	22.2%	
	151	Wetland 30.5	513	-	-	0.24	0.24	0.00	0.0%	
	151	Wetland 30.1C1	6302	3.15	2.51	-	-	0.64	20.3%	
19		TOTAL		2.63	2.63	0.00	0.00	0.00	0.0%	
940930-14	214	Wetland 17.8A	6302	2.63	2.63	-	-	0.00	0.0%	
20		TOTAL		7.01	6.38	3.37	3.37	0.63	6.1%	
940826-2	140	Wetland 30.12	630	0.80	0.80	-	-	0.00	0.0%	10/13/1994
940826-2	142	Wetland 17.1	6302	1.75	1.75	-	-	0.00	0.0%	10/13/1994
	151	Wetland 30.1C1	6302	0.13	0.11	-	-	0.02	15.4%	
940826-2	156	Wetland 17.3	563	-	-	2.36	2.36	0.00	0.0%	10/13/1994
901231-58	157	Wetland 30.1B1	6302	0.05	0.05	-	-	0.00	0.0%	N/A
940826-2	160	Wetland 17.2B	6212	0.57	0.57	-	-	0.00	0.0%	10/13/1994
940826-2	160	Wetland 17.2A	6302	0.67	0.67	-	-	0.00	0.0%	10/13/1994
940826-2	161	Wetland 17.5	6412	0.32	0.32	-	-	0.00	0.0%	10/13/1994
940826-2	166	Wetland 17.4	6412	1.02	1.02	-	-	0.00	0.0%	10/13/1994
940826-2	167	Wetland 17.6	6412	0.52	0.52	-	-	0.00	0.0%	10/13/1994
	178	Wetland 30.1C2	6212	0.09	-	-	-	0.09	100.0%	
940826-2	180	Wetland 17.7	563	-	-	0.83	0.83	0.00	0.0%	10/13/1994
	181	Wetland 17.20	6302	0.15	-	-	-	0.15	100.0%	
	182	Wetland 17.25	6303	0.06	-	-	-	0.06	100.0%	
	185	Wetland 12.12A	6302	0.02	-	-	-	0.02	100.0%	
	185	Wetland 12.12A	6302	0.12	-	-	-	0.12	100.0%	
901231-58	189	Wetland 12.13	6302	0.31	0.31	-	-	0.00	0.0%	N/A

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.

1	2	3	4	5	6	7	8	10	11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date
	537	Wetland 30.1C1	6302	0.20	0.20	-		0.00	0.0%
940826-2	538	Wetland 30.1C1	6302	0.06	0.06	-		0.00	0.0%
940826-2	538	Wetland 30.1C4	516	-		0.18	0.18	0.00	0.0%
	540	Wetland 17.8E	641	0.17		-		0.17	100.0%
<b>21</b>		<b>TOTAL</b>		<b>4.44</b>	<b>4.08</b>	<b>0.00</b>	<b>0.00</b>	0.36	8.1%
901231-58	157	Wetland 12.10B	6303	1.93	1.93	-		0.00	0.0%
901231-58	157	Wetland 30.1B1	6302	2.15	2.15	-		0.00	0.0%
	770	Wetland 12.29	641	0.36		-		0.36	100.0%
<b>22</b>		<b>TOTAL</b>		<b>10.07</b>	<b>0.52</b>	<b>1.78</b>	<b>0.00</b>	11.33	95.6%
	174	Wetland 12.11B	6412	0.09		-		0.09	100.0%
	174	Wetland 12.10B	6303	0.11		-		0.11	100.0%
	174	Wetland 12.11A	6302	0.27		-		0.27	100.0%
	183	Wetland 12.27	6302	0.08		-		0.08	100.0%
	183	Wetland 12.10B	6303	0.52		-		0.52	100.0%
N/A	185	Wetland 12.12A	6302	0.25	0.25	-		0.00	0.0%
N/A	185	Wetland 12.10B	6303	0.27	0.27	-		0.00	0.0%
	186	Wetland 12.10B	6303	1.81		-		1.81	100.0%
	190	Wetland 12.14A	6302	0.96		-		0.96	100.0%
	190	Wetland 12.14B	6303	3.03		-		3.03	100.0%
	209	Wetland 12.17	6411	0.78		-		0.78	100.0%
	539	Wetland 12.10B	6303	0.34		-		0.34	100.0%
	541	Wetland 12.14B	6303	0.04		-		0.04	100.0%
	541	Wetland 12.15B1	516	-		0.95		0.95	100.0%
	542	Wetland 12.15D	6302	0.05		-		0.05	100.0%
	542	Wetland 12.15B1	516	-		0.07		0.07	100.0%
	543	Wetland 12.15B2	513	-		0.76		0.76	100.0%
	543	Wetland 12.16	6303	1.47		-		1.47	100.0%
<b>23</b>		<b>TOTAL</b>		<b>3.33</b>	<b>3.05</b>	<b>0.00</b>	<b>0.00</b>	0.28	8.4%
901231-58	189	Wetland 12.13	6302	0.02	0.02	-		0.00	0.0%
	197	Wetland 12.18A	6302	0.08		-		0.08	100.0%
930601-5	213	Wetland 17.9B	6302	0.58	0.58	-		0.00	0.0%
930601-5	213	Wetland 17.9A	6412	0.77	0.77	-		0.00	0.0%
901231-58	220	Wetland 17.10B	6252	0.52	0.52	-		0.00	0.0%
901231-58	220	Wetland 17.10A	6302	1.15	1.15	-		0.00	0.0%

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1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Wetlands Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Waterbodies Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
920622-1 <b>24A</b>	224	Wetland 17.12B1	6172	0.20		-		0.20	100.0%	
	242	Wetland 17.11A	6182	0.01	0.01	-		0.00	0.0%	N/A
		<b>TOTAL</b>		<b>0.22</b>	<b>0.00</b>	<b>0.22</b>	<b>0.04</b>	<b>0.40</b>	<b>90.9%</b>	
	250	Wetland 17.12B4	6174	0.08		-		0.08	100.0%	
940615-10	255	Wetland 17.13	513	-		0.05	0.04	0.01	20.0%	
	543	Wetland 12.16	6303	0.14		-		0.14	100.0%	
	543	Wetland 12.15B2	513	-		0.17		0.17	100.0%	
		<b>TOTAL</b>		<b>7.77</b>	<b>3.64</b>	<b>0.12</b>	<b>0.12</b>	<b>4.13</b>	<b>52.3%</b>	
911025-6	206	Wetland 12.24B2	6303	0.33		-		0.33	100.0%	
	206	Wetland 12.24B1	6223	1.93		-		1.93	100.0%	
	223	Wetland 16.19	563	-		0.04	0.04	0.00	0.0%	N/A
	225	Wetland 16.1B	563	-		0.04	0.04	0.00	0.0%	N/A
911025-6	225	Wetland 16.1A	6412	1.22	1.22	-		0.00	0.0%	N/A
	247A	Wetland 16.4D	641	0.38	0.20	-		0.18	47.4%	N/A & 9/12/96
	247A	Wetland 16.4A	6302	0.48	0.48	-		0.00	0.0%	N/A
	247A	Wetland 16.4B	630	1.73	1.45	-		0.28	16.2%	N/A, N/A, 9/12/96
940513-2	247B	Wetland 16.2	6302	1.70	0.29	-		1.41	82.9%	N/A & 9/12/96
	257	Wetland 16.16	513	-		0.04	0.04	0.00	0.0%	N/A
		<b>TOTAL</b>		<b>28.49</b>	<b>7.68</b>	<b>2.83</b>	<b>0.95</b>	<b>22.69</b>	<b>72.4%</b>	
	230	Wetland 15.26A	6303	0.39	0.39	-		0.00	0.0%	1/12/1994
940930-25	234	Wetland 16.5	6304	2.78		-		2.78	100.0%	
	244	Wetland 15.25	513	-		0.73	0.13	0.60	82.2%	1/12/1994
	244	Wetland 15.25	513	-		0.79		0.79	100.0%	
	244	Wetland 16.6	6304	10.71	0.60	-		10.11	94.4%	1/12/1994
940513-2	247A	Wetland 16.4C	630	0.20		-		0.20	100.0%	
	247A	Wetland 16.4D	641	0.28		-		0.28	100.0%	
	247A	Wetland 16.3	617	0.46		-		0.46	100.0%	
	247A	Wetland 16.4A	6302	1.04	1.04	-		0.00	0.0%	N/A
940513-2 & 940615-10	247A	Wetland 16.4B	630	10.24	3.28	-		6.96	68.0%	N/A
	257	Wetland 16.16	513	-		0.49	0.30	0.19	38.8%	N/A
	258	Wetland 16.21	6412	0.15	0.15	-		0.00	0.0%	N/A
	259	Wetland 16.18A	563	-		0.02		0.02	100.0%	
940513-2	259	Wetland 16.18A	563	-		0.40	0.40	0.00	0.0%	N/A
	259	Wetland 16.15	6172	1.67	1.67	-		0.00	0.0%	N/A

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10		11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)		Construction Permit Issue Date
940615-10	261	Wetland 16.18A	563	-		0.14	0.11	0.03	21.4%	N/A
950407-3	265	Wetland 16.11	6412	0.55	0.55	-		0.00	0.0%	N/A
940615-10	556	Wetland 16.18A	563	-		0.26	0.01	0.25	96.2%	N/A
	780	Wetland 16.8	6304	0.02		-		0.02	100.0%	
<b>25B</b>		<b>TOTAL</b>		<b>2.80</b>	<b>1.60</b>	<b>0.91</b>	<b>0.00</b>	2.11	56.9%	
	263	Wetland 15.25	513	-		0.64		0.64	100.0%	
950407-3	264	Wetland 16.10A	6302	1.36	1.36	-		0.00	0.0%	N/A
	267	Wetland 16.9	563	-		0.27		0.27	100.0%	
	272	Wetland 16.13	6303	1.09		-		1.09	100.0%	
950407-3	274	Wetland 16.20	6412	0.06	0.06	-		0.00	0.0%	N/A
	554	Wetland 16.8	6304	0.11		-		0.11	100.0%	
950407-3	555	Wetland 16.10B	6112	0.18	0.18	-		0.00	0.0%	N/A
<b>25C</b>		<b>TOTAL</b>		<b>7.02</b>	<b>0.00</b>	<b>2.31</b>	<b>0.00</b>	9.33	100.0%	
	245	Wetland 15.20C	6252	0.27		-		0.27	100.0%	
	245	Wetland 15.20B	6302	1.23		-		1.23	100.0%	
	245	Wetland 15.20A	6212	1.27		-		1.27	100.0%	
	248	Wetland 15.23D	6302	0.74		-		0.74	100.0%	
	248	Wetland 15.21	6212	1.20		-		1.20	100.0%	
	248	Wetland 15.22	563	-		2.18		2.18	100.0%	
	256	Wetland 15.23F1	6173	0.01		-		0.01	100.0%	
	256	Wetland 15.26A	6303	1.05		-		1.05	100.0%	
	263	Wetland 15.25	513	-		0.01		0.01	100.0%	
	263	Wetland 15.25	513	-		0.12		0.12	100.0%	
	263	Wetland 15.26A	6303	0.61		-		0.61	100.0%	
	263	Wetland 15.23F2	6173	0.64		-		0.64	100.0%	
<b>26</b>		<b>TOTAL</b>		<b>1.55</b>	<b>1.55</b>	<b>1.10</b>	<b>0.93</b>	0.17	6.4%	
	204	Wetland 15.12	6412	0.47	0.47	-		0.00	0.0%	
	207	Wetland 15.37	516	-		0.76	0.76	0.00	0.0%	
	227	Wetland 15.33	6412	0.25	0.25	-		0.00	0.0%	
	229	Wetland 15.13A	563	-		0.17		0.17	100.0%	
	239	Wetland 15.15	6413	0.11	0.11	-		0.00	0.0%	
	240	Wetland 15.19	6302	0.70	0.70	-		0.00	0.0%	
	243	Wetland 15.27	6172	0.02	0.02	-		0.00	0.0%	
	544	Wetland 15.13B	516	-		0.17	0.17	0.00	0.0%	

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10		11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)		Construction Permit Issue Date
27		TOTAL		5.52	0.46	0.63	0.02	5.67	92.2%	
	238	Wetland 15.26A	6303	0.02		-		0.02	100.0%	
	241A	Wetland 15.26A	6303	0.12		-		0.12	100.0%	
	241B	Wetland 15.26A	6303	0.06		-		0.06	100.0%	
940930-25	244	Wetland 15.25	513	-		0.42	0.02	0.40	95.2%	1/12/1994
	246	Wetland 15.26A	6303	0.69		-		0.69	100.0%	
940930-25	249	Wetland 16.7	6223	0.46	0.46	-		0.00	0.0%	1/12/1994
	251	Wetland 15.24	6212	1.29		-		1.29	100.0%	
	254	Wetland 15.25	513	-		0.17		0.17	100.0%	
	254	Wetland 15.26A	6303	0.63		-		0.63	100.0%	
	263	Wetland 15.25	513	-		0.04		0.04	100.0%	
	552	Wetland 16.8	6304	0.85		-		0.85	100.0%	
	554	Wetland 16.8	6304	1.14		-		1.14	100.0%	
	780	Wetland 16.8	6304	0.25		-		0.25	100.0%	
	782	Wetland 16.8	6304	0.01		-		0.01	100.0%	
28		TOTAL		3.06	0.00	0.12	0.00	3.18	100.0%	
	94	Wetland 11.6B	6303	0.14		-		0.14	100.0%	
	95	Wetland 9.8	6304	0.09		-		0.09	100.0%	
	96	Wetland 11.17	513	-		0.12		0.12	100.0%	
	746	Wetland 11.6A1	6303	2.68		-		2.68	100.0%	
	747	Wetland 11.6A1	6303	0.02		-		0.02	100.0%	
	748	Wetland 11.6A1	6303	0.02		-		0.02	100.0%	
	749	Wetland 11.6H	625	0.03		-		0.03	100.0%	
	750	Wetland 11.6H	625	0.01		-		0.01	100.0%	
	751	Wetland 11.6H	625	0.07		-		0.07	100.0%	
29		TOTAL		2.85	0.00	0.74	0.00	3.59	100.0%	
	87	Wetland 9.19	6304	1.20		-		1.20	100.0%	
	90	Wetland 9.20	563	-		0.64		0.64	100.0%	
	92	Wetland 9.21	6412	0.36		-		0.36	100.0%	
	93	Wetland 9.22	6412	0.42		-		0.42	100.0%	
	521	Wetland 9.23	563	-		0.10		0.10	100.0%	
	745	Wetland 9.104	6303	0.87		-		0.87	100.0%	
30		TOTAL		1.01	1.01	2.75	1.13	1.62	43.1%	
980715-1	231A	Wetland 15.18	513	-		1.85	0.66	1.19	64.3%	11/12/1998



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1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Permitted Waterbody Impact per O.U.	Waterbodies Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col. 5-Col. 6 or Col. 7-Col. 8)	Construction Permit Issue Date	
980715-1	231B	Wetland 15.31	6172	0.59	0.59	-	-	0.00	0.0%	11/12/1998
	232	Wetland 15.30B	516	-	-	0.20	-	0.20	100.0%	
930203-2 & 980715-1	236	Wetland 15.34	516	-	-	0.70	0.47	0.23	32.9%	7/15/93 & 11/12/98
	239	Wetland 15.15	6413	0.02	0.02	-	-	0.00	0.0%	
930203-2	243	Wetland 15.27	6172	0.40	0.40	-	-	0.00	0.0%	
31A		TOTAL		0.00	0.00	0.21	0.00	0.21	100.0%	7/15/1993
	137A	Wetland 9.79B	524	-	-	0.01	-	0.01	100.0%	
	137A	Wetland 9.79B	524	-	-	0.02	-	0.02	100.0%	
	137B	Wetland 9.77	513	-	-	0.18	-	0.18	100.0%	
31B		TOTAL		0.61	0.00	0.13	0.00	0.74	100.0%	
	159	Wetland 15.10B	6303	0.10	-	-	-	0.10	100.0%	
	159	Wetland 15.10A	6213	0.51	-	-	-	0.51	100.0%	
	164	Wetland 15.9	513	-	-	0.13	-	0.13	100.0%	
32A		TOTAL		6.58	4.37	0.00	0.00	2.21	33.6%	
970626-8	122	Wetland 9.37	6212	5.92	4.37	-	-	1.55	26.2%	7/22/1997
	531	Wetland 9.40A	6303	0.17	-	-	-	0.17	100.0%	
	532	Wetland 9.40A	6303	0.49	-	-	-	0.49	100.0%	
32B		TOTAL		7.11	7.11	0.00	0.00	0.00	0.0%	
94-0121-3	114	Wetland 9.41A2	6184	0.82	0.82	-	-	0.00	0.0%	12/9/1993
94-0121-3	114	Wetland 9.41A1	6304	6.29	6.29	-	-	0.00	0.0%	12/9/1993
32		TOTAL		28.35	27.49	1.21	1.21	0.86	2.9%	
	120	Wetland 9.39	6254	0.86	-	-	-	0.86	100.0%	
960306-2	123	Wetland 9.84A	523	-	-	0.01	0.01	0.00	0.0%	6/13/1996
960306-2	123	Wetland 9.84A	523	-	-	0.01	0.01	0.00	0.0%	6/13/1996
960306-2	123	Wetland 9.84B	513	-	-	1.19	1.19	0.00	0.0%	6/13/1996
960306-2	123	Wetland 9.66B	6254	3.91	3.91	-	-	0.00	0.0%	6/13/1996
960306-2	123	Wetland 9.76B	6253	4.53	4.53	-	-	0.00	0.0%	6/13/1996
960306-2	123	Wetland 9.66A	6304	8.26	8.26	-	-	0.00	0.0%	6/13/1996
960306-2	123	Wetland 9.76A	6303	10.79	10.79	-	-	0.00	0.0%	6/13/1996
33		TOTAL		1.63	1.63	0.00	0.00	0.00	0.0%	
931102-1	133	Wetland 9.64	6303	1.63	1.63	-	-	0.00	0.0%	9/9/1993
34		TOTAL		1.49	1.36	0.00	0.00	0.13	8.7%	
950707-9	111	Wetland 9.47A	6304	1.49	1.36	-	-	0.13	8.7%	N/A
35		TOTAL		0.30	0.30	0.00	0.00	0.00	0.0%	

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1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands		Waterbodies		Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)		Construction Permit Issue Date
				Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Permitted Waterbody Impact per O.U.	Actual Impacted Acreage			
N/A	132	Wetland 9.61A	6412	0.28	0.28	-		0.00	0.0%	N/A
N/A	134	Wetland 9.61B	6412	0.02	0.02	-		0.00	0.0%	N/A
36A		TOTAL		0.00	0.00	0.11	0.11	0.00	0.0%	
(LLB)	519	Wetland 9.57G	516	-		0.11	0.11	0.00	0.0%	N/A
36B		TOTAL		0.48	0.48	0.34	0.34	0.00	0.0%	
(LLB)	106	Wetland 9.86	621	0.48	0.48	-		0.00	0.0%	N/A
(LLB)	518	Wetland 9.57G	516	-		0.23	0.23	0.00	0.0%	N/A
(LLB)	803	Wetland 9.57G	516	-		0.11	0.11	0.00	0.0%	N/A
37A		TOTAL		7.02	0.80	0.00	0.00	6.22	88.6%	
	24	Wetland 2.10	6303	7.02	0.80	-		6.22	88.6%	
37B		TOTAL		0.45	0.00	0.00	0.00	0.45	100.0%	
	44	Wetland 2.17A	6303	0.23		-		0.23	100.0%	
	45	Wetland 2.17B	6213	0.22		-		0.22	100.0%	
37C		TOTAL		1.15	0.00	0.00	0.00	1.15	100.0%	
	49	Wetland 2.22	6302	1.15		-		1.15	100.0%	
37D		TOTAL		2.61	2.61	0.00	0.00	0.00	0.0%	
(Indy 200)	56	Wetland 2.20	6213	2.61	2.61	-		0.00	0.0%	N/A
37E		TOTAL		4.94	0.00	0.00	0.00	4.94	100.0%	
	58	Wetland 2.21	6212	4.94		-		4.94	100.0%	
37F		TOTAL		0.00	0.00	0.07	0.00	0.07	100.0%	
	53	Wetland 2.18J	513	-		0.07		0.07	100.0%	
37		TOTAL		32.98	5.60	6.05	0.00	33.43	85.7%	
	12A	Wetland 2.5C	513	-		0.05		0.05	100.0%	
	12A	Wetland 2.2C	6174	0.32		-		0.32	100.0%	
	12A	Wetland 2.1A	6254	0.41		-		0.41	100.0%	
	12A	Wetland 2.5B1	513	-		5.62		5.62	100.0%	
	12A	Wetland 2.1B	6174	9.49		-		9.49	100.0%	
	12B	Wetland 2.2A	6304	0.40		-		0.40	100.0%	
	12B	Wetland 2.2B	6214	1.03		-		1.03	100.0%	
	15	Wetland 2.7	6304	8.41		-		8.41	100.0%	
	17	Wetland 2.4B1	6183	0.26	0.26	-		0.00	0.0%	
	17	Wetland 2.4B2	6304	0.42	0.42	-		0.00	0.0%	
	17	Wetland 2.4B3	6174	1.76	1.70	-		0.06	3.4%	
	18A	Wetland 2.4A4	6213	0.10	0.10	-		0.00	0.0%	

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10		11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)		Construction Permit Issue Date
	18A	Wetland 2.4A6	6213	0.17	0.17	-		0.00	0.0%	
	18A	Wetland 2.4A1	6183	0.41	0.41	-		0.00	0.0%	
	18A	Wetland 2.4A5	6303	0.49	0.49	-		0.00	0.0%	
	18A	Wetland 2.4A2	6254	2.04	2.04	-		0.00	0.0%	
	18B	Wetland 2.4A7	6254	0.01	0.01	-		0.00	0.0%	
	20	Wetland 2.5C	513	-		0.07		0.07	100.0%	
	20	Wetland 2.5C	513	-		0.12		0.12	100.0%	
	20	Wetland 2.5D	524	-		0.19		0.19	100.0%	
	20	Wetland 2.3B	6213	0.62		-		0.62	100.0%	
	20	Wetland 2.3A	6304	6.64		-		6.64	100.0%	
38		TOTAL		2.72	2.72	0.00	0.00	0.00	0.0%	
	118	Wetland 9.41B2	6254	1.08	1.08	-		0.00	0.0%	
	121	Wetland 9.41B1	6253	1.64	1.64	-		0.00	0.0%	
39		TOTAL		4.22	3.56	12.48	0.11	13.03	78.0%	
920622-1	242	Wetland 17.11A	6182	0.62	0.62	-		0.00	0.0%	N/A
920622-1	252	Wetland 17.12A2	6303	0.72	0.72	-		0.00	0.0%	N/A
920622-1	253	Wetland 17.24A	641	0.36	0.36	-		0.00	0.0%	N/A
920622-1	253	Wetland 17.24B	625	0.47	0.47	-		0.00	0.0%	N/A
920622-1	266	Wetland 17.17G	6223	0.61	0.61	-		0.00	0.0%	N/A
920622-1	269	Wetland 17.22	512	-		0.05	0.05	0.00	0.0%	N/A
920622-1	270	Wetland 17.21	512	-		0.06	0.06	0.00	0.0%	N/A
920622-1	271	Wetland 17.18	6412	0.66	0.66	-		0.00	0.0%	N/A
	273	Wetland 17.23	641	0.08		-		0.08	100.0%	N/A
	275	Wetland 17.17E	6303	0.04		-		0.04	100.0%	
920622-1	546	Wetland 17.12A2	6303	0.08	0.08	-		0.00	0.0%	N/A
920622-1	547	Wetland 17.12A2	6303	0.04	0.04	-		0.00	0.0%	N/A
	548	Wetland 17.12A2	6303	0.03		-		0.03	100.0%	N/A
	549	Wetland 17.12A2	6303	0.24		-		0.24	100.0%	N/A
	550	Wetland 17.12A2	6303	0.06		-		0.06	100.0%	N/A
	553	Wetland 17.15	563	-		12.37		12.37	100.0%	N/A
	557	Wetland 17.17E	6303	0.21		-		0.21	100.0%	N/A
40		TOTAL		4.83	2.68	0.00	0.00	2.15	44.5%	
N/A	185	Wetland 12.12A	6302	1.20	0.50	-		0.70	58.3%	10/11/1993
901231-58	189	Wetland 17.8C	6302	0.06	0.06	-		0.00	0.0%	N/A

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)		Construction Permit Issue Date
901231-58	189	Wetland 12.13	6302	2.82	2.12	-		0.70	24.8%	N/A
	197	Wetland 12.18A	6302	0.75		-		0.75	100.0%	
<b>41</b>		<b>TOTAL</b>		<b>0.00</b>	<b>0.00</b>	<b>4.39</b>	<b>0.00</b>	4.39	100.0%	
	509	Wetland 14.32	534	-		0.67		0.67	100.0%	
	510	Wetland 14.33	534	-		0.38		0.38	100.0%	
	511	Wetland 14.35	534	-		0.81		0.81	100.0%	
	512	Wetland 14.36	534	-		1.64		1.64	100.0%	
	513	Wetland 14.37	534	-		0.89		0.89	100.0%	
<b>42</b>		<b>TOTAL</b>		<b>2.14</b>	<b>2.03</b>	<b>0.73</b>	<b>0.42</b>	0.42	14.6%	
930203-2	226	Wetland 15.14B	6412	0.49	0.49	-		0.00	0.0%	7/15/1993
930203-2	226	Wetland 15.14A	6173	0.79	0.79	-		0.00	0.0%	7/15/1993
940930-25	230	Wetland 15.26A	6303	0.20	0.20	-		0.00	0.0%	1/12/1994
940930-25	230	Wetland 15.26A	6303	0.59	0.55	-		0.04	6.8%	1/12/1994
	241A	Wetland 15.26A	6303	0.07		-		0.07	100.0%	
940930-25	244	Wetland 15.25	513	-		0.30	0.30	0.00	0.0%	1/12/1994
940930-25	244	Wetland 15.25	513	-		0.43	0.12	0.31	72.1%	1/12/1994
<b>North</b>		<b>TOTAL</b>		<b>36.27</b>	<b>1.33</b>	<b>25.11</b>	<b>1.55</b>	58.50	95.3%	
960903-7	4	Wetland 1.6H2	6182	0.18	0.18	-		0.00	0.0%	12/12/1996
960903-7	4	Wetland 1.6H1	6303	0.30	0.30	-		0.00	0.0%	12/12/1996
960903-7	4	Wetland 1.6H3	6213	0.41	0.41	-		0.00	0.0%	12/12/1996
	5	Wetland 1.6E	6303	5.47		-		5.47	100.0%	
	6	Wetland 1.6C	611	0.06		-		0.06	100.0%	
	6	Wetland 1.6D	6304	0.20		-		0.20	100.0%	
	7	Wetland 1.4	524	-		9.85		9.85	100.0%	
	8	Wetland 1.9	513	-		0.98		0.98	100.0%	
	11	Wetland 5.1	524	-		2.71		2.71	100.0%	
	12A	Wetland 2.5B1	513	-		0.01		0.01	100.0%	
	13A	Wetland 14.11A	611	0.22		-		0.22	100.0%	
	13B	Wetland 14.11A	611	0.03		-		0.03	100.0%	
	16	Wetland 1.3A	513	-		0.05		0.05	100.0%	
	19	Wetland 1.1A	513	-		0.24		0.24	100.0%	
	19	Wetland 1.1H	617	0.68		-		0.68	100.0%	
	22	Wetland 2.9	630	0.04		-		0.04	100.0%	
	27A	Wetland 5.18B	513	-		0.02		0.02	100.0%	

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
	27A	Wetland 5.18C	513	-		0.37		0.37	100.0%	
	27C	Wetland 5.5	6304	0.01		-		0.01	100.0%	
	38	Wetland 2.16B	6253	0.30		-		0.30	100.0%	
	38	Wetland 2.16A	6212	0.39		-		0.39	100.0%	
	39	Wetland 5.34A	6302	0.02		-		0.02	100.0%	
	46B	Wetland 7.6B	513	-		0.01		0.01	100.0%	
	46B	Wetland 7.6B	513	-		0.01		0.01	100.0%	
	60	Wetland 9.87	630	2.39		-		2.39	100.0%	
931122-5	69	Wetland 14.18C	513	-		0.02	0.02	0.00	0.0%	N/A
	82	Wetland 9.14B	6303	0.38		-		0.38	100.0%	
	83	Wetland 9.71	630	0.07		-		0.07	100.0%	
	84	Wetland 9.14B	6303	0.07		-		0.07	100.0%	
	85	Wetland 9.14B	6303	0.01		-		0.01	100.0%	
	89	Wetland 9.14B	6303	0.30		-		0.30	100.0%	
	97	Wetland 11.17	513	-		0.11		0.11	100.0%	
	98	Wetland 11.6B	6303	0.29		-		0.29	100.0%	
	99	Wetland 9.25C	6253	0.37		-		0.37	100.0%	
	99	Wetland 9.25A	6213	0.40		-		0.40	100.0%	
	100	Wetland 9.30A	6254	0.05		-		0.05	100.0%	
	101	Wetland 30.5	513	-		0.11		0.11	100.0%	
	102	Wetland 9.16E	513	-		0.19		0.19	100.0%	
	103	Wetland 9.16D	513	-		0.04		0.04	100.0%	
	104	Wetland 8.1A3	643	0.01		-		0.01	100.0%	
	104	Wetland 8.1A3	643	0.02	0.01	-		0.01	50.0%	
	104	Wetland 8.1A2	6302	0.06		-		0.06	100.0%	
	110	Wetland 11.10G	513	-		0.04		0.04	100.0%	
	113	Wetland 11.10G	513	-		0.65		0.65	100.0%	
	115	Wetland 11.10G	513	-		0.09		0.09	100.0%	
	116	Wetland 9.84A	523	-		0.07		0.07	100.0%	
	122	Wetland 9.37	6212	0.13		-		0.13	100.0%	
960306-2	123	Wetland 9.84B	513	-		0.11	0.11	0.00	0.0%	6/13/1996
960306-2	123	Wetland 9.84A	523	-		2.14	0.94	1.20	56.1%	6/13/1996
	124	Wetland 11.12A	6302	0.05		-		0.05	100.0%	
	125	Wetland 11.12A	6302	0.43		-		0.43	100.0%	

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
	137A	Wetland 9.79A	621	0.02		-		0.02	100.0%	
	137A	Wetland 9.79B	524	-		2.74		2.74	100.0%	
	137B	Wetland 9.77	513	-		0.45		0.45	100.0%	
	138	Wetland 15.5A	6253	0.23		-		0.23	100.0%	
	150	Wetland 9.70	630	2.05		-		2.05	100.0%	
	165	Wetland 13.6A	523	-		0.05		0.05	100.0%	
	168	Wetland 12.4	6303	2.25		-		2.25	100.0%	
	171	Wetland 12.28	524	-		0.35		0.35	100.0%	
	184	Wetland 15.11B	563	-		0.06		0.06	100.0%	
	207	Wetland 15.37	516	-		0.06	0.06	0.00	0.0%	
	207	Wetland 15.36	563	-		0.33	0.33	0.00	0.0%	
	231A	Wetland 15.18	513	-		0.01		0.01	100.0%	
	263	Wetland 15.23F2	6173	0.01		-		0.01	100.0%	
	263	Wetland 15.25	513	-		0.02		0.02	100.0%	
	267	Wetland 16.9	563	-		0.52		0.52	100.0%	
	272	Wetland 16.13	6303	1.45		-		1.45	100.0%	
950407-3	274	Wetland 16.20	6412	0.08	0.08	-		0.00	0.0%	N/A
	275	Wetland 17.17E	6303	0.09		-		0.09	100.0%	
	275	Wetland 17.17A	6211	0.25		-		0.25	100.0%	
	275	Wetland 17.8A	6302	0.78		-		0.78	100.0%	
950629-2	275	Wetland 17.19	6302	1.33	0.14	-		1.19	89.5%	N/A
940525-2	276	Wetland 23.3AH	513	-		0.03	0.03	0.00	0.0%	N/A
	513	Wetland 14.37	534	-		0.02		0.02	100.0%	
	515	Wetland 9.88	524	-		0.48		0.48	100.0%	
	516	Wetland 9.92	524	-		0.25		0.25	100.0%	
	517	Wetland 9.90	523	-		0.15		0.15	100.0%	
	530	Wetland 11.9	630	0.57		-		0.57	100.0%	
	531	Wetland 9.40A	6303	0.01		-		0.01	100.0%	
	532	Wetland 9.40A	6303	0.01		-		0.01	100.0%	
	535	Wetland 9.98	524	-		1.52		1.52	100.0%	
	536	Wetland 9.99	524	-		0.19		0.19	100.0%	
	544	Wetland 15.13B	516	-		0.06	0.06	0.00	0.0%	
	700	Wetland 14.4A	630	0.39		-		0.39	100.0%	
	701	Wetland 14.4A	630	0.36		-		0.36	100.0%	

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
	702	Wetland 14.25	630	0.42		-		0.42	100.0%	
	704	Wetland 14.1	630	0.16		-		0.16	100.0%	
	705	Wetland 14.47	630	0.00		-		0.00	0.0%	
	708	Wetland 14.11A	611	0.01		-		0.01	100.0%	
	711	Wetland 14.4B	6411	0.01		-		0.01	100.0%	
	711	Wetland 14.4B	6411	0.02		-		0.02	100.0%	
	711	Wetland 14.48	630	0.35		-		0.35	100.0%	
	716	Wetland 5.2A	630	0.01		-		0.01	100.0%	
	716	Wetland 5.2A	630	0.01		-		0.01	100.0%	
	729	Wetland 7.1D2	6303	0.07	0.03	-		0.04	57.1%	
	732	Wetland 2.25	630	0.60		-		0.60	100.0%	
	741	Wetland 9.15	630	1.97		-		1.97	100.0%	
	744	Wetland 15.7	621	3.44		-		3.44	100.0%	
	752	Wetland 11.12A	6302	0.10		-		0.10	100.0%	
	753	Wetland 11.12A	6302	0.12		-		0.12	100.0%	
	754	Wetland 11.12A	6302	1.11		-		1.11	100.0%	
	755	Wetland 11.12A	6302	0.03		-		0.03	100.0%	
	758	Wetland 11.14	622	0.02		-		0.02	100.0%	
	759	Wetland 11.14	622	0.02		-		0.02	100.0%	
	814	Wetland 7.1K3	6303	0.12		-		0.12	100.0%	
	815	Wetland 7.1K1	6172	0.06		-		0.06	100.0%	
	816	Wetland 7.1K1	6172	0.02		-		0.02	100.0%	
	817	Wetland 7.1M1	6173	0.23		-		0.23	100.0%	
	818	Wetland 7.1M1	6173	0.01		-		0.01	100.0%	
	819	Wetland 7.1O	630	0.35		-		0.35	100.0%	
	820	Wetland 7.1P	6184	0.05		-		0.05	100.0%	
	821	Wetland 7.2A2	6302	0.05		-		0.05	100.0%	
	822	Wetland 7.2A1	6253	0.41		-		0.41	100.0%	
	823	Wetland 7.2B2	6172	0.36		-		0.36	100.0%	
	824	Wetland 7.2B1	6303	1.02		-		1.02	100.0%	
	825	Wetland 7.2C1	6303	1.15		-		1.15	100.0%	
	826	Wetland 7.2C2	6253	0.35		-		0.35	100.0%	
	827	Wetland 7.1D3	6253	0.10	0.10	-		0.00	0.0%	
	828	Wetland 7.1D2	6303	0.08	0.08	-		0.00	0.0%	

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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Revised Table 11 (D.3-2R), SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Permitted Wetland Impact per O.U. Acreage	Actual Wetland Impact per O.U. Acreage	Permitted Waterbodies Impact per O.U. Acreage	Actual Waterbodies Impact per O.U. Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
829	Wetland 2.17C1	6253	0.15				0.15	100.0%		
829	Wetland 2.17C2	6303	0.03				0.03	100.0%		
830	Wetland 7.1C4	625	0.02				0.02	100.0%		
830	Wetland 7.1C3	630	0.02				0.02	100.0%		
831	Wetland 13.1D	630	1.36					0.0%		
832	Wetland 13.4	630	0.25					0.0%		
835	Wetland 5.58	630	0.11					0.0%		
836	Wetland 5.58	630	0.14					0.0%		
837	Wetland 19.3C	630	0.14					0.0%		
838	Wetland 19.19	630	0.03					0.0%		
839	Wetland 19.20	630	0.66					0.0%		
840	Wetland 8.1A1	630	2.43					0.0%		
841	Wetland 8.3	630	0.54					0.0%		
842	Wetland 19.6B	630	0.46					0.0%		
843	Wetland 30.1C1		0.70					0.0%		
844	Wetland 30.1C2		0.45					0.0%		
846	Wetland 80.46	429	0.43					0.0%		
847	Wetland 80.47	429	0.19					0.0%		
848	Wetland 80.48	510	-				0.10	0.0%		
850	Wetland 1.1A	513	-				0.60	0.0%		
851	Wetland 80.51	510	-				0.30	0.0%		
852	Wetland 80.52	630	0.05					0.0%		
853	Wetland 80.53	630	0.05					0.0%		
854	Wetland 80.54	630	0.56					0.0%		
855	Wetland 80.54	516	-				0.30	0.0%		
856	Wetland 8.1A1	630	0.35					0.0%		
858	Wetland 80.58	618	0.12					0.0%		
859	Wetland 80.59	516	-				0.26	0.0%		
860	Wetland 80.60	516	-				0.21	0.0%		
<b>Subtotal North of US 192:</b>										
			412.22	152.46	133.46	36.57	356.65	65.4%		
43	TOTAL		7.96	6.07	4.49	0.00	6.38	51.2%		
279	Wetland 21.4B	6302	0.21		-		0.21	100.0%		
280	Wetland 21.4A	6302	0.07		-		0.07	100.0%		
286	Wetland 21.1	563	-		4.49		4.49	100.0%		



# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
940513-2 & 940615-10	289	Wetland 21.14E	6302	3.68	2.76	-		0.92	25.0%	N/A
950530-2	295	Wetland 21.2B	6173	0.14	0.14	-		0.00	0.0%	N/A
950530-2	300	Wetland 21.3	6211	0.79	0.10	-		0.69	87.3%	N/A
950426-4	307	Wetland 21.45A	6412	1.04	1.04	-		0.00	0.0%	N/A
950426-4	314	Wetland 21.14E	6302	0.01	0.01	-		0.00	0.0%	N/A
950426-4	321	Wetland 21.23	6302	0.17	0.17	-		0.00	0.0%	N/A
950426-4	353	Wetland 21.26	6213	0.39	0.39	-		0.00	0.0%	N/A
950426-4	360	Wetland 20.10	6213	1.46	1.46	-		0.00	0.0%	N/A
44		TOTAL		4.95	3.97	0.00	0.00	0.98	19.8%	
950426-4&970616-12	371	Wetland 20.1S	6302	0.39	0.39	-		0.00	0.0%	N/A
940615-9&970616-12	381	Wetland 20.1U	6172	1.10	1.10	-		0.00	0.0%	N/A
930528-3 & 940615-9	394	Wetland 21.39	6303	0.03	0.03	-		0.00	0.0%	11/10/1993
	409	Wetland 21.44B	6212	0.14		-		0.14	100.0%	
	409	Wetland 21.44A	6432	0.25		-		0.25	100.0%	
930528-3 & 940615-9	409	Wetland 21.43	6213	3.04	2.45	-		0.59	19.4%	11/10/1993
45		TOTAL		36.16	9.11	0.05	0.01	27.09	74.8%	
930528-3	310	Wetland 21.14F	6212	1.56	0.63	-		0.93	59.6%	11/10/1993
930528-3	310	Wetland 21.14E	6302	6.04	2.27	-		3.77	62.4%	11/10/1993
	313	Wetland 21.14E	6302	2.38		-		2.38	100.0%	
	315	Wetland 21.14E	6302	0.22		-		0.22	100.0%	
	317	Wetland 21.14E	6302	0.91		-		0.91	100.0%	
	330	Wetland 21.29	6212	1.90		-		1.90	100.0%	
	333	Wetland 21.28C	6412	0.13		-		0.13	100.0%	
	333	Wetland 21.28A	6302	1.36		-		1.36	100.0%	
	336	Wetland 21.25A	6131	0.13		-		0.13	100.0%	
	336	Wetland 21.25B	6411	0.53		-		0.53	100.0%	
	348	Wetland 21.30B	6412	0.46		-		0.46	100.0%	
	348	Wetland 21.30A	6302	7.24		-		7.24	100.0%	
950426-4	353	Wetland 21.26	6213	0.53	0.53	-		0.00	0.0%	N/A
930528-3	357	Wetland 21.31	6172	3.54	2.25	-		1.29	36.4%	11/10/1993
	367	Wetland 20.1P	6302	0.52		-		0.52	100.0%	
	367	Wetland 20.1R	6303	0.89		-		0.89	100.0%	
	367	Wetland 20.1Q	6212	1.87		-		1.87	100.0%	
	376	Wetland 21.32	6303	0.41		-		0.41	100.0%	

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

Revised Table 11 (D-3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.

1	2	3	4	5	6	7	8	10	11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Permitted Wetland Impact per O.U.	Actual Wetland Impact per O.U.	Permitted Waterbody Impact per O.U.	Actual Waterbody Impact per O.U.	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date
940615-9	377	Wetland 21.33	6303	0.55	0.55	-	-	0.00	N/A
940615-9	381	Wetland 20.1U	6172	0.07	0.07	-	-	0.00	N/A
	387	Wetland 21.35	6302	1.52		-	-	1.52	
930528-3 & 940615-9	388	Wetland 21.34B	6412	0.31	0.31	-	-	0.00	11/10/1993
930528-3 & 940615-9	388	Wetland 21.34C	6432	0.50	0.50	-	-	0.00	11/10/1993
930528-3	389	Wetland 21.46	563	-		0.05	0.01	0.04	11/10/1993
930528-3 & 940615-9	390	Wetland 20.1W2	6432	0.31	0.11	-	-	0.20	11/10/1993
930528-3 & 940615-9	390	Wetland 21.36	6173	1.00	1.00	-	-	0.00	11/10/1993
930528-3 & 940615-9	393	Wetland 21.38B	6433	0.33	0.29	-	-	0.04	11/10/1993
930528-3 & 940615-9	393	Wetland 21.38A	6213	0.95	0.60	-	-	0.35	11/10/1993
46	TOTAL			8.98	7.52	0.33	0.33	1.46	
	289	Wetland 21.14E	6302	0.01		-	-	0.01	
930528-3	293	Wetland 21.22B	6303	2.63	2.63	-	-	0.00	11/10/1993
	294	Wetland 21.18	6302	0.14		-	-	0.14	
	296	Wetland 21.14E	6302	0.26		-	-	0.26	
930528-3	298	Wetland 21.21	6303	2.23	2.10	-	-	0.13	11/10/1993
950426-4	307	Wetland 21.45B	524	-		0.33	0.33	0.00	N/A
950426-4	307	Wetland 21.45A	6412	0.63	0.63	-	-	0.00	N/A
930528-3	310	Wetland 21.14H	6432	0.02	0.01	-	-	0.01	11/10/1993
930528-3	310	Wetland 21.14E	6302	2.69	2.15	-	-	0.54	11/10/1993
	321	Wetland 21.23	6302	0.37		-	-	0.37	
47	TOTAL			4.16	0.00	0.08	0.00	4.24	
455	Wetland 24.1B	6302	4.16			-	-	4.16	
559	Wetland 24.2	563	-			0.08		0.08	
48	TOTAL			7.91	6.32	1.86	1.86	1.59	
970227-4	369	Wetland 23.30	516	-		0.16	0.16	0.00	7/10/1997
	380	Wetland 23.30	516	-		0.03	0.03	0.00	
970227-4	392	Wetland 23.3V1	6302	0.32	0.32	-	-	0.00	7/10/1997
	402	Wetland 23.3V2	6302	0.03		-	-	0.03	
	403	Wetland 23.3V2	6302	0.14		-	-	0.14	
	407	Wetland 23.3V2	6302	0.27		-	-	0.27	
	421	Wetland 23.3AA	6303	0.85		-	-	0.85	
	424	Wetland 23.3AA	6303	0.04	0.02	-	-	0.02	
940615-9&970227-4	433	Wetland 23.3L	6302	3.34	3.34	-	-	0.00	N/A & 7/10/97

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

Revised Table 11 (D.3-2R): SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U. Acreage	Wetlands Permitted Waterbody Impact per O.U. Acreage	Wetlands Permitted Waterbody Impact per O.U. Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date		
438	Welland 23.3L	6302	0.14	-	-	1.67	0.14	100.0%		
441	Welland 22.56	563	-	-	1.67	1.67	0.00	0.0%	9/12/1996	
447	Welland 22.52B	6432	0.48	0.45	-	-	0.03	6.3%		
447	Welland 22.52A	6212	1.45	1.34	-	-	0.11	7.6%		
451	Welland 22.51A	6213	0.29	0.29	-	-	0.00	0.0%		
796	Welland 22.51B	6213	0.56	0.56	-	-	0.00	0.0%		
49	TOTAL		18.28	9.82	8.30	8.17	8.59	32.3%		
344	Welland 22.34	6302	4.27	3.46	-	-	0.81	19.0%	11/10/93 & 9/12/96	
356	Welland 23.3P	516	-	-	0.34	0.21	0.13	38.2%	11/10/93 & 9/12/96	
361	Welland 22.65	641	0.41	0.21	-	-	0.20	48.8%	11/10/1993	
370	Welland 22.61B	6432	0.24	0.17	-	-	0.07	29.2%	4/11/1996	
370	Welland 22.61A	6302	0.23	0.16	-	-	0.07	30.4%	11/10/1993	
370	Welland 22.61C	6432	0.28	0.28	-	-	0.00	0.0%	11/10/93 & 9/12/96	
392	Welland 23.3X	6302	0.14	-	-	-	0.14	100.0%		
392	Welland 23.3W1	6412	0.23	-	-	-	0.23	100.0%		
392	Welland 23.3W2	6433	0.30	0.13	-	-	0.17	56.7%	11/10/1993	
392	Welland 23.3Y2	6412	0.40	0.40	-	-	0.00	0.0%	11/10/1993	
392	Welland 23.3V1	6302	0.43	0.43	-	-	0.43	100.0%	11/10/1993	
392	Welland 23.3Y1	6432	0.97	0.97	-	-	0.00	0.0%	11/10/1993	
392	Welland 23.3X	6302	0.99	0.74	-	-	0.25	25.3%	11/10/1993	
392	Welland 23.3Z	563	-	-	4.55	4.55	0.00	0.0%	11/10/1993	
408	Welland 23.5	643	0.04	0.01	-	-	0.03	75.0%	11/10/1993	
930528-3	Welland 22.46A	6302	2.88	1.61	-	-	1.27	44.1%	11/10/1993	
940615-9	Welland 22.46B	6302	0.16	0.16	-	-	0.00	0.0%		
426	Welland 22.48B	6432	0.08	0.08	-	-	0.00	0.0%		
940615-9	Welland 22.48A	6303	0.60	0.14	-	-	0.46	76.7%		
434	Welland 22.50A	6182	0.28	-	-	-	0.28	100.0%		
434	Welland 22.50B	6432	0.37	-	-	-	0.37	100.0%		
437	Welland 22.50B	6432	0.20	-	-	-	0.20	100.0%		
930528-3	Welland 22.50C	630	0.61	0.20	-	-	0.41	67.2%	11/10/1993	
930528-3 & 940615-9	Welland 22.50D	6412	0.92	0.73	-	-	0.19	20.7%	11/10/1993	
930528-3	Welland 22.50A	6182	1.52	0.37	-	-	1.15	75.7%	11/10/1993	
441	Welland 22.56	563	-	-	3.36	3.36	0.00	0.0%	11/10/93 & 9/12/96	
793	Welland 22.49D	6172	0.86	-	-	-	0.86	100.0%		

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
	794	Wetland 22.49A	6172	0.61		-		0.61	100.0%	
	795	Wetland 22.49C	6432	0.26				0.26	100.0%	
	863	Wetland 23.3Q	516	-		0.05	0.05	0.00	0.0%	
<b>50</b>		<b>TOTAL</b>		<b>12.11</b>	<b>9.08</b>	<b>0.00</b>	<b>0.00</b>	3.03	25.0%	
930528-3,931221-3,950327-4 (Wetlands)	309	Wetland 22.26A	6302	1.91	1.33	-		0.58	30.4%	11/10/93 & 7/14/94
931221-3	329	Wetland 22.28	6412	0.43	0.43	-		0.00	0.0%	7/14/1994
930528-3&960621-12	331	Wetland 22.29B	6212	0.79	0.58	-		0.21	26.6%	11/10/93 & 9/12/96
930528-3&960621-12	331	Wetland 22.29A	6302	2.38	2.12	-		0.26	10.9%	11/10/93 & 9/12/96
931221-3	332	Wetland 22.27A	6302	0.36	0.36	-		0.00	0.0%	7/14/1994
	338A	Wetland 22.29C	6412	0.05	0.05	-		0.00	0.0%	
931221-3	338A	Wetland 22.29C	6412	0.17	0.17	-		0.00	0.0%	7/14/1994
931221-3	338A	Wetland 22.29D	6212	0.43	0.43	-		0.00	0.0%	7/14/1994
	338B	Wetland 22.29C	6412	0.12		-		0.12	100.0%	
931221-3 & 950327-4	343	Wetland 22.30	6302	1.77	0.98	-		0.79	44.6%	7/14/1994
	345	Wetland 22.31A	6412	0.68	0.68	-		0.00	0.0%	
	345	Wetland 22.31B	6212	0.71	0.71	-		0.00	0.0%	
	345	Wetland 22.31C	6302	0.98	0.98	-		0.00	0.0%	
	346	Wetland 22.27A	6302	0.07		-		0.07	100.0%	
	349	Wetland 22.27A	6302	0.07		-		0.07	100.0%	
931221-3	350	Wetland 23.3E	6302	0.27	0.26	-		0.01	3.7%	7/14/1994
	351	Wetland 22.27A	6302	0.08		-		0.08	100.0%	
	352	Wetland 22.27A	6302	0.02		-		0.02	100.0%	
	354	Wetland 23.3E	6302	0.06		-		0.06	100.0%	
	355	Wetland 23.3E	6302	0.01		-		0.01	100.0%	
	359	Wetland 22.33	6172	0.75		-		0.75	100.0%	
<b>51</b>		<b>TOTAL</b>		<b>2.02</b>	<b>0.35</b>	<b>0.00</b>	<b>0.00</b>	1.67	82.7%	
	373	Wetland 23.3R	6303	0.17	0.17	-		0.00	0.0%	
	375	Wetland 22.45	6303	0.01		-		0.01	100.0%	
	378	Wetland 22.38	6182	0.19		-		0.19	100.0%	
	383	Wetland 22.39	6302	0.74		-		0.74	100.0%	
	385	Wetland 22.40	6302	0.43		-		0.43	100.0%	
	391	Wetland 23.3S	6302	0.05		-		0.05	100.0%	
	399	Wetland 23.3T	6302	0.05		-		0.05	100.0%	
980330-6	400	Wetland 23.3T	6302	0.04	0.04	-		0.00	0.0%	11/12/1998

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Permitted Wetlands Impact per Acreage O.U.	Permitted Wetlands Actual Impact per Acreage O.U.	Permitted Waterbody Impact per Acreage O.U.	Permitted Waterbodies Actual Impact per Acreage O.U.	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
980330-6	401	Wetland 23.3T	6302	0.10	0.08	-	-	0.10	11/12/1998	100.0%
980330-6	404	Wetland 23.3T	6302	0.16	0.08	-	-	0.08	11/12/1998	50.0%
980330-6	411	Wetland 23.3T	6302	0.05	0.04	-	-	0.01	11/12/1998	20.0%
980330-6	412	Wetland 23.3T	6302	0.03	0.02	-	-	0.01	11/12/1998	33.3%
52		TOTAL		3.59	1.95	0.00	0.00	1.64		45.7%
355	Wetland 23.3E	6302		0.02		-	-	0.02		100.0%
358	Wetland 23.3E	6302		0.11		-	-	0.11		100.0%
396	Wetland 23.3S	6302		0.27		-	-	0.27		100.0%
399	Wetland 23.3T	6302		0.01		-	-	0.01		100.0%
405	Wetland 22.44	6302		0.03		-	-	0.03		100.0%
406	Wetland 22.44	6302		0.57		-	-	0.57		100.0%
980330-6	412	Wetland 23.3T	6302	0.03	0.01	-	-	0.02	11/12/1998	66.7%
413	Wetland 23.3L	6302		0.14	0.04	-	-	0.10		71.4%
416	Wetland 23.3L	6302		0.09	0.09	-	-	0.00		0.0%
980330-6	417	Wetland 23.3T	6302	0.14	0.14	-	-	0.00	11/12/1998	0.0%
418	Wetland 23.3L	6302		0.72	0.72	-	-	0.00		0.0%
980330-6	427	Wetland 23.3L	6302	0.30	0.30	-	-	0.00	11/12/1998	0.0%
428	Wetland 23.3F	630		0.17	0.17	-	-	0.00		0.0%
980330-6	430	Wetland 23.3L	6302	0.48	0.48	-	-	0.00	11/12/1998	0.0%
435	Wetland 23.3L	6302		0.07		-	-	0.07		100.0%
443	Wetland 23.3L	6302		0.08		-	-	0.08		100.0%
444	Wetland 23.3L	6302		0.36		-	-	0.36		100.0%
53		TOTAL		6.36	3.78	0.63	0.63	2.58		36.9%
930528-3	302	Wetland 22.22B	6222	0.10	0.08	-	-	0.02	11/10/1993	20.0%
930528-3	302	Wetland 22.22A	6172	0.42	0.31	-	-	0.11	11/10/1993	26.2%
930528-3	303	Wetland 22.24	563	-		0.63	0.63	0.00	11/10/1993	0.0%
308	Wetland 22.15A	6302		0.09		-	-	0.09		100.0%
950327-4	309	Wetland 22.26A	6302	0.01	0.01	-	-	0.00	N/A	0.0%
311	Wetland 22.15A	6302		0.02		-	-	0.02		100.0%
931221-3	312	Wetland 22.15A	6302	0.04	0.04	-	-	0.00	7/14/1994	0.0%
316	Wetland 22.26A	6302		0.02		-	-	0.02		100.0%
931221-3	320A	Wetland 22.63	6302	0.91	0.91	-	-	0.00	7/14/1994	0.0%
931221-3	320B	Wetland 23.3B	6302	0.64	0.64	-	-	0.00	7/14/1994	0.0%
323	Wetland 22.64	6302		0.76		-	-	0.76		100.0%

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Permitted Wetland Impact per O.U. Acreage	Permitted Wetland Impact per O.U. Acreage	Waterbodies Permitted Waterbody Impact per O.U. Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date		
931221-3	324	Wetland 22.27A	6302	0.51	0.02	-	0.49	96.1%	7/14/1994	
931221-3	326	Wetland 22.62	6302	0.84	0.84	-	0.00	0.0%	7/14/1994	
931221-3	332	Wetland 22.27A	6302	0.83	0.50	-	0.33	39.8%	7/14/1994	
931221-3	335	Wetland 22.59	6302	0.43	0.43	-	0.00	0.0%	7/14/1994	
	339	Wetland 22.27A	6302	0.52	-	-	0.52	100.0%		
	341	Wetland 22.27A	6302	0.02	-	-	0.02	100.0%		
	342	Wetland 22.27A	6302	0.15	-	-	0.15	100.0%		
	347	Wetland 22.27A	6302	0.05	-	-	0.05	100.0%		
54	TOTAL			4.64	3.07	0.60	2.17	41.4%		
	287	Wetland 23.3AH	513	-	0.60	0.60	0.60	100.0%		
930528-3 & 960903-15	299	Wetland 22.8	6302	0.91	0.90	-	0.01	1.1%	11/10/93 & 12/12/96	
930528-3	301	Wetland 22.15A	6302	1.64	0.31	-	1.33	81.1%	11/10/1993	
	304	Wetland 22.10	6302	0.17	-	-	0.17	100.0%		
	305	Wetland 22.12A	6172	0.01	-	-	0.01	100.0%		
980810-3	306	Wetland 22.12A	6172	0.02	0.02	-	0.00	0.0%	9/9/1998	
	311	Wetland 22.15A	6302	0.01	-	-	0.01	100.0%		
931221-3	312	Wetland 22.15A	6302	0.55	0.55	-	0.00	0.0%	7/14/1994	
960903-15	318	Wetland 22.12A	6172	0.07	0.03	-	0.04	57.1%	12/12/1996	
930528-3	783	Wetland 22.3C	643	0.22	0.22	-	0.00	0.0%	11/10/1993	
960903-15	785	Wetland 22.69	643	0.14	0.14	-	0.00	0.0%	12/12/1996	
960903-15	786	Wetland 22.71	630	0.24	0.24	-	0.00	0.0%	12/12/1996	
960903-15	787	Wetland 22.68	643	0.36	0.36	-	0.00	0.0%	12/12/1996	
960903-15	788	Wetland 22.70	617	0.30	0.30	-	0.00	0.0%	12/12/1996	
55	TOTAL			6.58	3.46	6.16	7.52	59.0%		
930528-3	278	Wetland 22.18	6132	0.23	0.21	-	0.02	8.7%	11/10/1993	
930528-3	282	Wetland 22.17	6304	1.62	0.96	-	0.66	40.7%	11/10/1993	
930528-3 & 931122-2	284	Wetland 22.16B	513	-	1.72	1.07	0.65	37.8%	11/10/93 & 5/12/94	
930528-3 & 931122-2	285	Wetland 22.19	6303	2.50	1.78	-	0.72	28.8%	11/10/93 & 5/12/94	
930528-3	288	Wetland 22.20	563	-	0.60	0.39	0.21	35.0%	11/10/1993	
931122-2	291	Wetland 22.16A	513	-	0.98	0.30	0.68	69.4%	5/12/1994	
931122-2	291	Wetland 22.15A	6302	0.98	0.07	-	0.91	92.9%	5/12/1994	
931122-2	292	Wetland 22.15A	6302	1.22	0.44	-	0.78	63.9%	5/12/1994	
	297	Wetland 22.24	563	-	2.86	-	2.86	100.0%		
	784	Wetland 22.21B	643	0.03	-	-	0.03	100.0%		

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10		11
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)		Construction Permit Issue Date
	833	Wetland 22.22	630	1.58	1.58			0.00	0.0%	
	834	Wetland 22.6	621	0.33	0.33			0.00	0.0%	
56		TOTAL		3.79	0.00	0.00	0.00	3.79	100.0%	
	464	Wetland 24.4	630	1.60		-		1.60	100.0%	
	465	Wetland 24.1B	6302	1.02		-		1.02	100.0%	
	469	Wetland 24.7	643	0.03		-		0.03	100.0%	
	470	Wetland 24.1K	6172	0.25		-		0.25	100.0%	
	471	Wetland 24.1E	6172	0.13		-		0.13	100.0%	
	471	Wetland 24.1J	6432	0.50		-		0.50	100.0%	
	474	Wetland 24.3	6412	0.26		-		0.26	100.0%	
South		TOTAL		54.16	16.86	0.00	0.00	37.30	68.9%	
(CP-27)	277	Wetland 22.4B	6302	0.02	0.02	-		0.00	0.0%	N/A
(CP-27)	277	Wetland 22.4B	6302	0.05	0.05	-		0.00	0.0%	N/A
(CP-27)	277	Wetland 22.4A	6212	0.10	0.10	-		0.00	0.0%	N/A
(CP-27)	277	Wetland 22.4C	6212	0.39	0.39	-		0.00	0.0%	N/A
	279	Wetland 21.4B	6302	0.07		-		0.07	100.0%	
	280	Wetland 21.4A	6302	0.14		-		0.14	100.0%	
930528-3	310	Wetland 21.14H	6432	0.10	0.01	-		0.09	90.0%	11/10/1993
930528-3	310	Wetland 21.14F	6212	0.40	0.08	-		0.32	80.0%	11/10/1993
	310	Wetland 21.14E	6302	0.47		-		0.47	100.0%	
960621-12	310	Wetland 21.14E	6302	1.51	0.63	-		0.88	58.3%	9/12/1996
930528-3	310	Wetland 21.14E	6302	3.03	1.43	-		1.60	52.8%	11/10/1993
	313	Wetland 21.14E	6302	0.76		-		0.76	100.0%	
	331	Wetland 22.29A	6302	0.03		-		0.03	100.0%	
	344	Wetland 22.34	6302	0.01		-		0.01	100.0%	
960621-12	357	Wetland 21.31	6172	0.44	0.44	-		0.00	0.0%	9/12/1996
	358	Wetland 23.3E	6302	0.02		-		0.02	100.0%	
940615-9	370	Wetland 22.61C	6432	0.03	0.03	-		0.00	0.0%	N/A
	372	Wetland 23.3R	6303	0.06		-		0.06	100.0%	
940615-9	388	Wetland 21.34C	6432	0.10	0.10	-		0.00	0.0%	N/A
940615-9	388	Wetland 21.34C	6432	0.10	0.10	-		0.00	0.0%	N/A
940615-9	388	Wetland 21.34A	6183	0.13	0.13	-		0.00	0.0%	N/A
940615-9	388	Wetland 21.34B	6412	0.30	0.30	-		0.00	0.0%	N/A
940615-9	390	Wetland 21.36	6173	0.66	0.66	-		0.00	0.0%	N/A

# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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REPORT DATE: 12/8/2006

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Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
940615-9	393	Wetland 21.38B	6433	0.02	0.02	-		0.00	0.0%	N/A
940615-9	393	Wetland 21.38A	6213	0.54	0.54	-		0.00	0.0%	N/A
930528-3 & 940615-9	394	Wetland 21.39	6303	1.09	1.09	-		0.00	0.0%	11/10/94, N/A
940615-9	395	Wetland 21.37	6303	1.31	1.31	-		0.00	0.0%	N/A
940615-9	409	Wetland 21.43	6213	7.16	7.16	-		0.00	0.0%	N/A
940615-9	414	Wetland 22.47B	6432	0.24	0.24	-		0.00	0.0%	N/A
940615-9	414	Wetland 22.47A	6212	0.54	0.54	-		0.00	0.0%	N/A
940615-9	415	Wetland 22.46B	6302	0.45	0.45	-		0.00	0.0%	N/A
940615-9	419	Wetland 22.48D	6432	0.16	0.16	-		0.00	0.0%	N/A
940615-9	419	Wetland 22.48E	6212	0.33	0.33	-		0.00	0.0%	N/A
940615-9	420	Wetland 22.48C	6432	0.06	0.06	-		0.00	0.0%	N/A
	422	Wetland 20.1Z	6182	1.66		-		1.66	100.0%	
	422	Wetland 20.1T	6152	1.97		-		1.97	100.0%	
	435	Wetland 23.3U	630	0.13		-		0.13	100.0%	
	435	Wetland 23.3L	6302	1.14		-		1.14	100.0%	
950615-9	440	Wetland 20.4A	6302	0.49	0.31	-		0.18	36.7%	N/A
	448	Wetland 23.3L	6302	0.15	0.15	-		0.00	0.0%	
	452	Wetland 24.1L	6432	0.05		-		0.05	100.0%	
	452	Wetland 24.1A2	6182	0.15		-		0.15	100.0%	
	452	Wetland 23.3AG2	6182	0.20		-		0.20	100.0%	
	452	Wetland 24.1A1	6211	1.12		-		1.12	100.0%	
	452	Wetland 23.3AG1	6211	1.33		-		1.33	100.0%	
	452	Wetland 24.1B	6302	2.03		-		2.03	100.0%	
	457	Wetland 24.1Q2	641	0.27		-		0.27	100.0%	
	458	Wetland 24.1Q1	641	0.14		-		0.14	100.0%	
	458	Wetland 24.1B	6302	2.16		-		2.16	100.0%	
	461	Wetland 24.1B	6302	1.40		-		1.40	100.0%	
	466	Wetland 24.1B	6302	0.19		-		0.19	100.0%	
	467	Wetland 24.1B	6302	1.00		-		1.00	100.0%	
	468	Wetland 24.1B	6302	2.98		-		2.98	100.0%	
	472	Wetland 24.1B	6302	0.54		-		0.54	100.0%	
	472	Wetland 24.1R	622	0.55		-		0.55	100.0%	
	472	Wetland 24.1B	6302	1.89		-		1.89	100.0%	
	475	Wetland 24.1B	6302	0.50		-		0.50	100.0%	

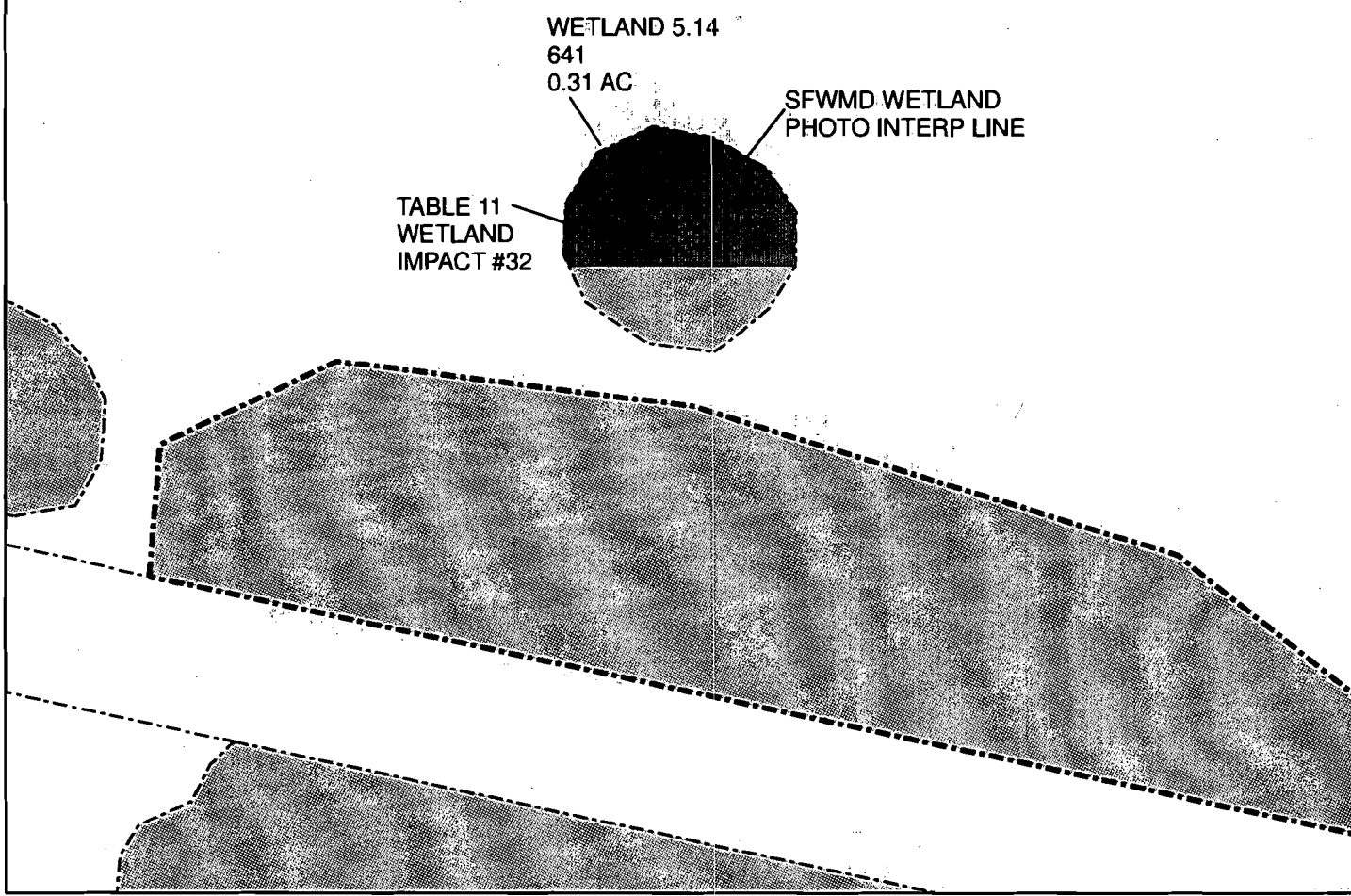
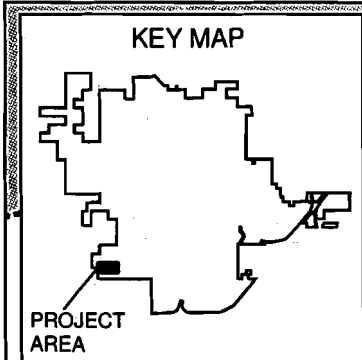


# Accounting System for Tracking SFWMD Permitted Wetland Impacts

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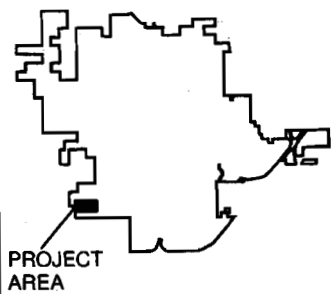
H-13

Revised Table 11 (D.3-2R). SFWMD Wetland System Numbers and Impact within each Operational Unit.										
1	2	3	4	5	6	7	8	10	11	
Construction Permit Application No. and/or O.U.	Impact Number	S.F.W.M.D. Wetland System Number	Landuse	Wetlands Permitted Wetland Impact per O.U.	Actual Impacted Acreage	Waterbodies Permitted Waterbody Impact per O.U.	Actual Impacted Acreage	Remaining Wetland or Waterbody Acreage Permitted for Impact (Col.5-Col.6 or Col.7-Col.8)	Construction Permit Issue Date	
	477	Wetland 24.6A	630	0.02		-		0.02	100.0%	
	477	Wetland 24.5G	6182	0.52		-		0.52	100.0%	
	477	Wetland 24.5E	6302	0.74		-		0.74	100.0%	
	477	Wetland 24.5F	6302	1.00		-		1.00	100.0%	
	477	Wetland 24.5C	6412	1.30		-		1.30	100.0%	
	477	Wetland 24.5B	6182	1.44		-		1.44	100.0%	
	477	Wetland 24.5A	6302	1.44		-		1.44	100.0%	
	477	Wetland 24.5D	6182	2.39		-		2.39	100.0%	
	560	Wetland 24.1B	6302	2.42		-		2.42	100.0%	
	833	Wetland 22.2	630	0.03	0.03	-		0.00	0.0%	
<b>Subtotal South of US 192:</b>				<b>182.61</b>	<b>82.32</b>	<b>22.50</b>	<b>12.76</b>	<b>110.03</b>	<b>53.6%</b>	
<b>Grand Total Permit-V:</b>				<b>594.83</b>	<b>234.78</b>	<b>155.96</b>	<b>49.33</b>	<b>466.68</b>	<b>62.2%</b>	



A PORTION OF WETLAND IMPACT # 32					PREVIOUS IMPACT	LEGEND	
WETLAND SYS No.	LTP IMPACT (PER TABLE 11)	ACTUAL IMPACT	REMAINING IMPACT	OU No.			
5.14	0.31	0.21	0.10	4	NONE	-----	PHOTO INTERP
AGENCY S.F.W.M.D.					PHOTO INTERP SURVEYED	Y / N Y / (N)	EXHIBIT DATE
							12-08-06
PBSJ &					NOTE: THIS EXHIBIT IS TO BE USED IN CONJUNCTION WITH TABLE 11.	DISNEY VACATION CLUB DISNEY ANIMAL KINGDOM LODGE COMPARISON OF ACTUAL VERSUS PERMITTED WETLAND IMPACT ACREAGE	516
							COVER TYPE
							OPP UNIT NUMBER
							4

# KEY MAP



SFWMD WETLAND  
PHOTO INTERP LINE

TABLE 11  
WETLAND  
IMPACT #35

WETLAND 5.12  
641  
0.23 AC

## A PORTION OF WETLAND IMPACT #35

PREVIOUS  
IMPACT

## LEGEND

- PHOTO INTERP
- SURVEY
- OU LIMITS
- VEGETATION
- /// PRESENT IMPACT
- APPROVED/TAKING
- APPROV/NOT TAKING
- NOT APPROV/TAKING
- WETLAND AREA COVER TYPE

WETLAND SYS No.	LTP IMPACT (PER TABLE 11)	ACTUAL IMPACT	REMAINING IMPACT	OU No.	PREVIOUS IMPACT
5.12	0.23	0.23	0.00	4	NONE

AGENCY S.F.W.M.D.

PHOTO INTERP  
SURVEYED

Y/N  
Y/N

EXHIBIT DATE  
12-08-06

516 COVER TYPE



NOTE:  
THIS EXHIBIT IS TO BE  
USED IN CONJUNCTION  
WITH TABLE 11.

**DISNEY VACATION CLUB  
DISNEY ANIMAL KINGDOM LODGE**

COMPARISON OF ACTUAL VERSUS  
PERMITTED WETLAND IMPACT ACREAGE

OPP UNIT  
NUMBER

4

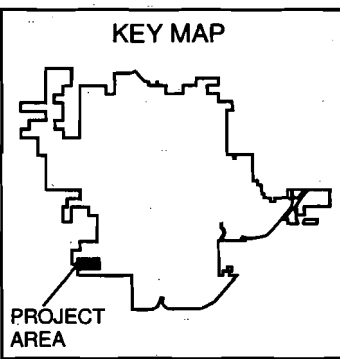
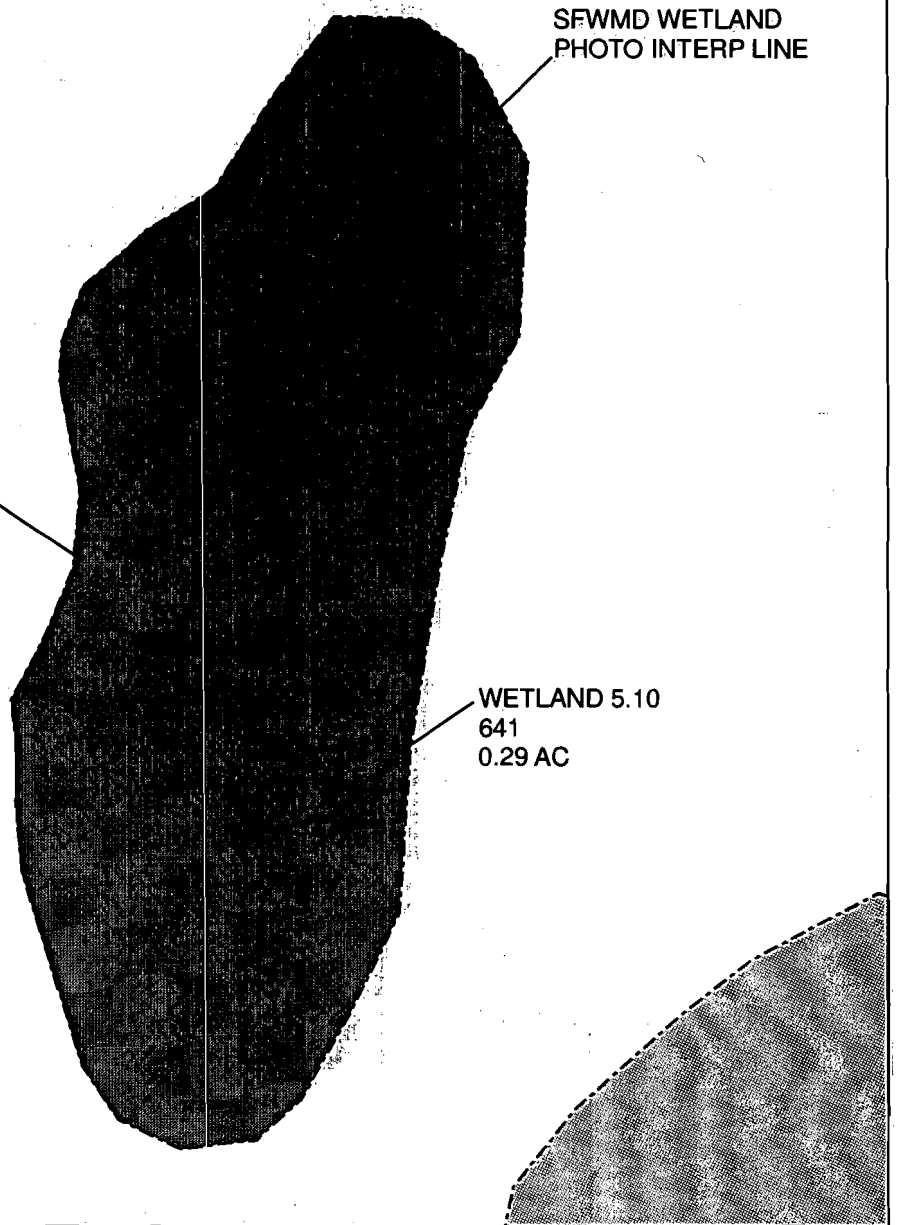
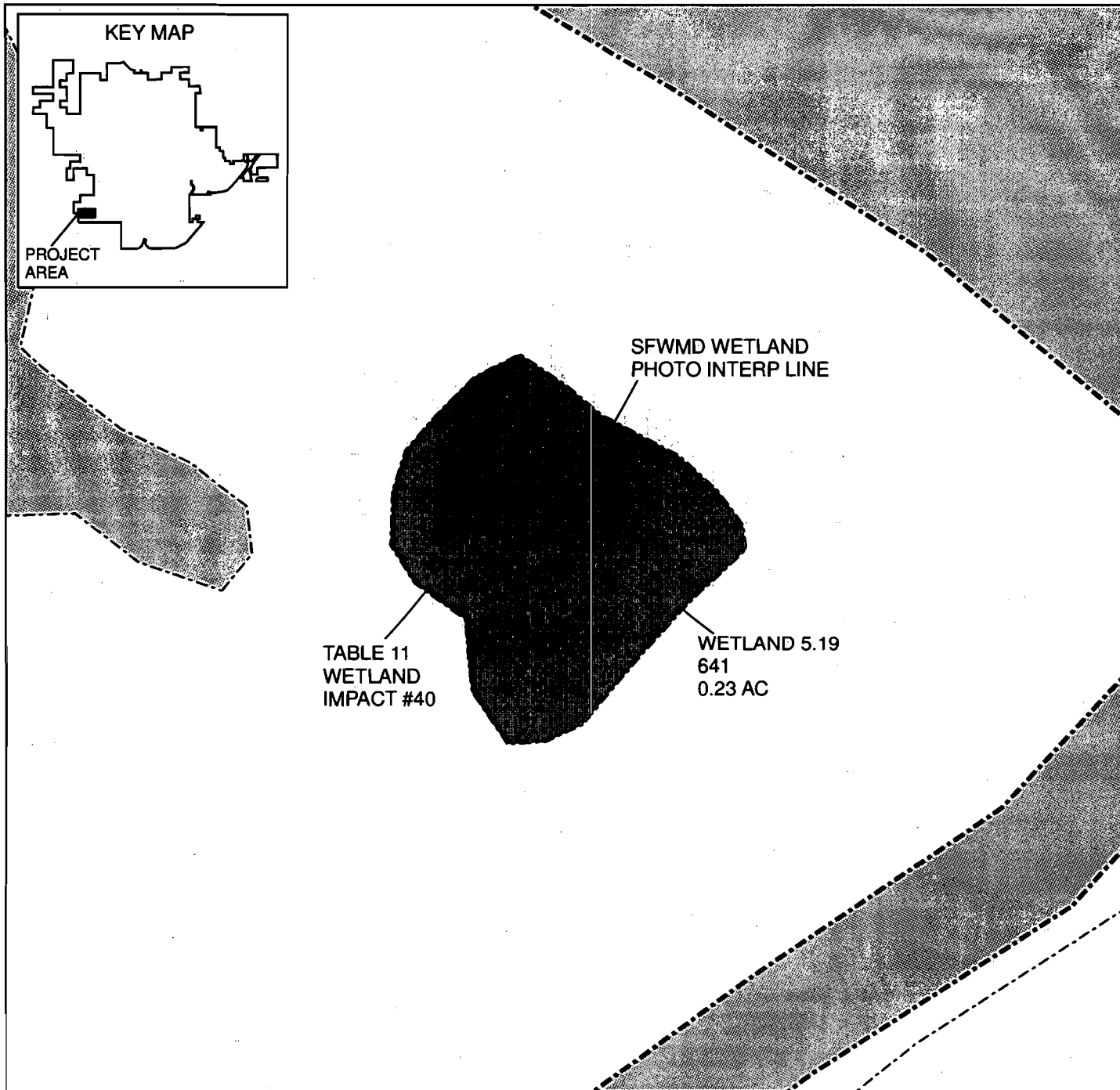


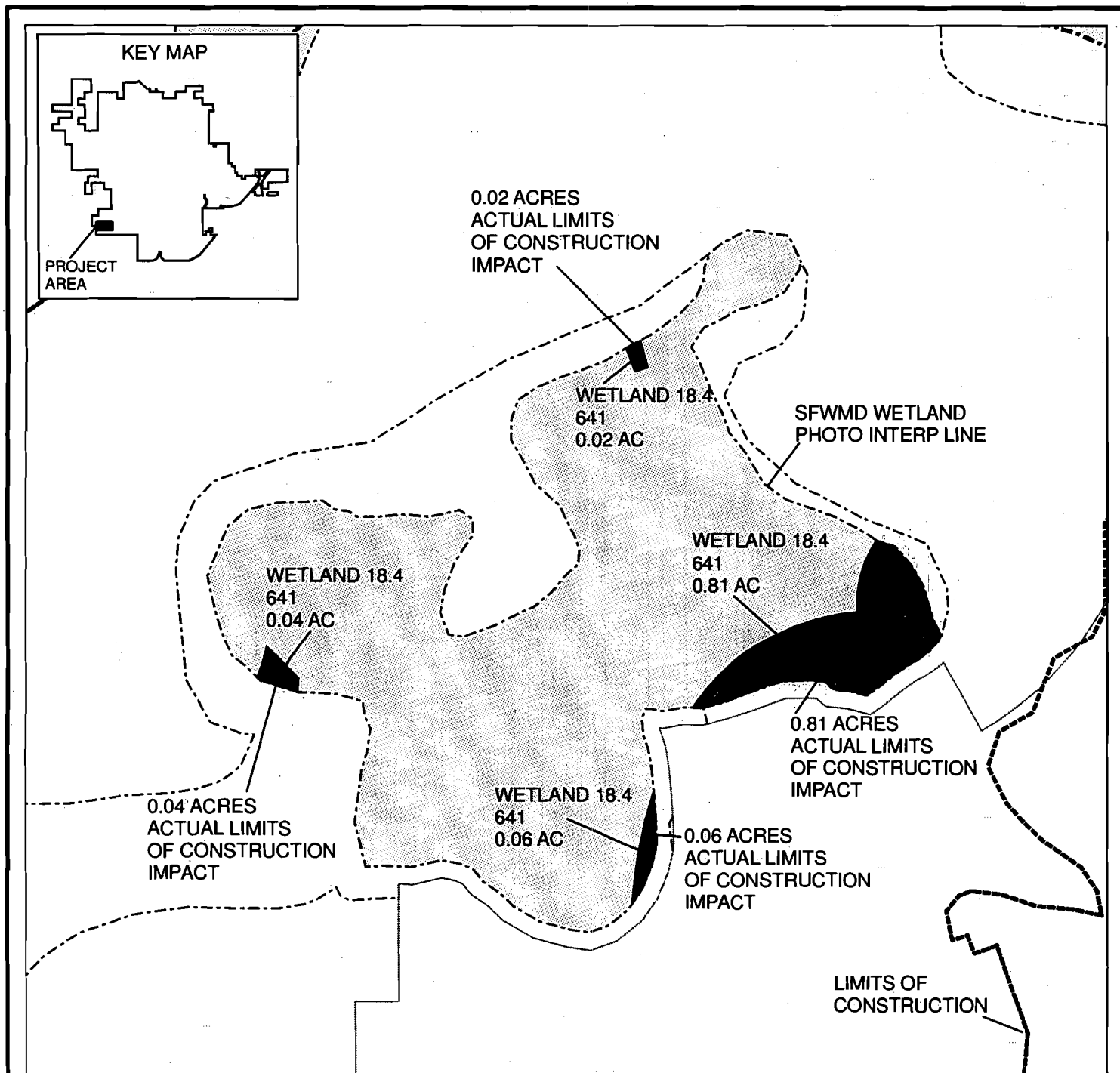
TABLE 11  
WETLAND  
IMPACT #36



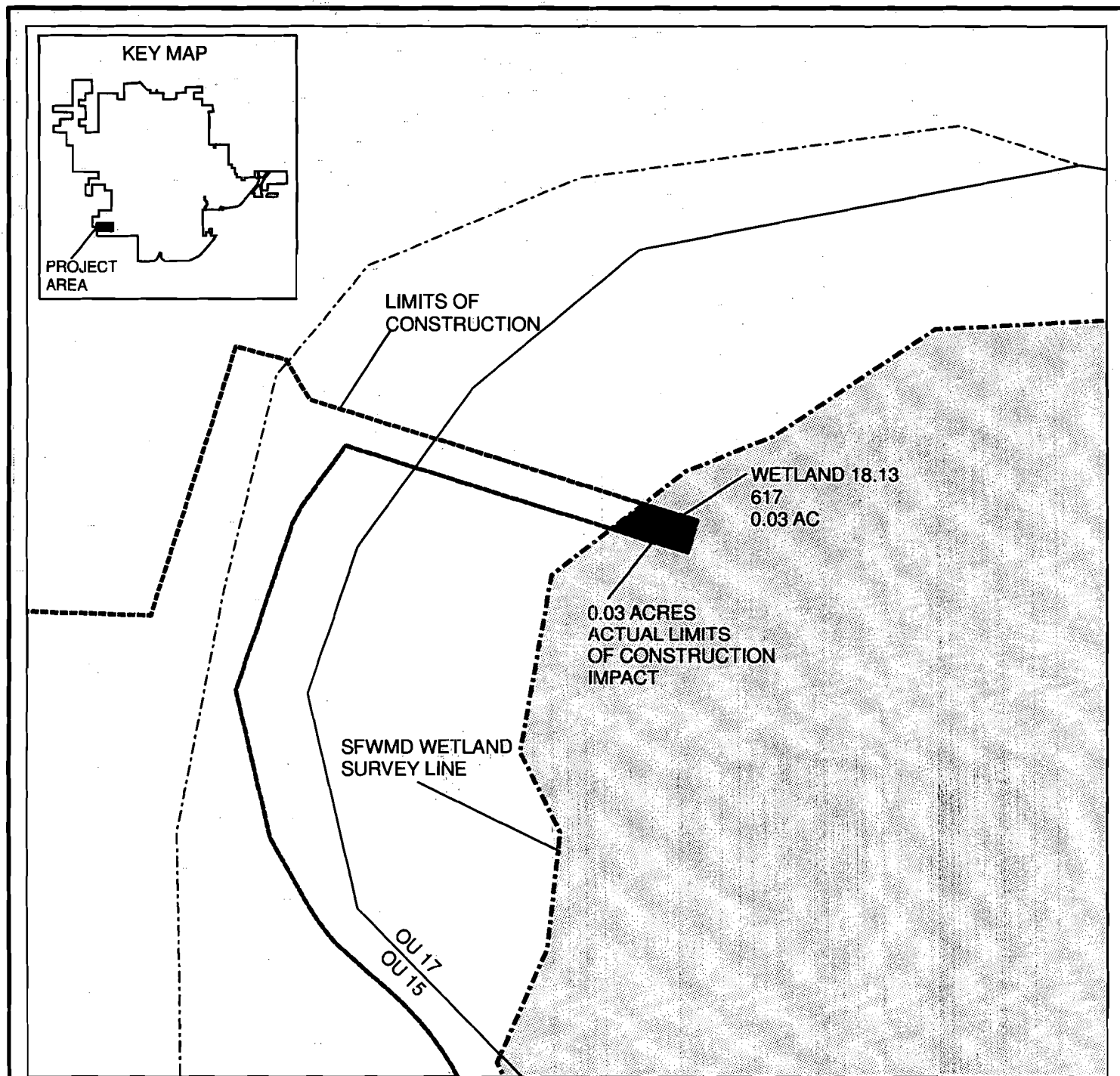
A PORTION OF WETLAND IMPACT # 36					PREVIOUS IMPACT	LEGEND
WETLAND SYS No.	LTP IMPACT (PER TABLE 11)	ACTUAL IMPACT	REMAINING IMPACT	OU No.		
5.10	0.29	0.29	0.00	4	NONE	<p>----- PHOTO INTERP</p> <p>----- SURVEY</p> <p>----- OU LIMITS</p> <p>----- VEGETATION</p> <p>////// PRESENT IMPACT</p> <p>APPROVED/TAKING</p> <p>APPROV/NOT TAKING</p> <p>NOT APPROV/TAKING</p> <p>WETLAND AREA</p> <p>COVER TYPE</p>
AGENCY S.F.W.M.D.		PHOTO INTERP SURVEYED		<input checked="" type="radio"/> Y / <input type="radio"/> N <input type="radio"/> Y / <input checked="" type="radio"/> N	EXHIBIT DATE 12-08-06	516
		NOTE: THIS EXHIBIT IS TO BE USED IN CONJUNCTION WITH TABLE 11.		<b>DISNEY VACATION CLUB DISNEY ANIMAL KINGDOM LODGE</b> COMPARISON OF ACTUAL VERSUS PERMITTED WETLAND IMPACT ACREAGE		OPP UNIT NUMBER 4



A PORTION OF WETLAND IMPACT # 40					PREVIOUS IMPACT	LEGEND
WETLAND SYS No.	LTP IMPACT (PER TABLE 11)	ACTUAL IMPACT	REMAINING IMPACT	OU No.		
5.19	0.23	0.23	0.00	4	NONE	- - - - PHOTO INTERP - - - - SURVEY - - - - OU LIMITS - - - - VEGETATION // // // PRESENT IMPACT [Solid Black Box] APPROVED/TAKING [Stippled Box] APPROV/NOT TAKING [Cross-hatched Box] NOT APPROV/TAKING [Patterned Box] WETLAND AREA 516 COVER TYPE
AGENCY S.F.W.M.D.		PHOTO INTERP SURVEYED		(Y) / N Y / (N)	EXHIBIT DATE 12-08-06	
<b>PBSJ</b> NOTE: THIS EXHIBIT IS TO BE USED IN CONJUNCTION WITH TABLE 11.		<b>DISNEY VACATION CLUB DISNEY ANIMAL KINGDOM LODGE</b> COMPARISON OF ACTUAL VERSUS PERMITTED WETLAND IMPACT ACREAGE				OPP UNIT NUMBER 4



A PORTION OF WETLAND IMPACT # 864					PREVIOUS IMPACT	LEGEND
WETLAND SYS No.	LTP IMPACT (PER TABLE 11)	ACTUAL IMPACT	REMAINING IMPACT	OU No.		
18.4	0.00	0.81	0.00	15	NONE	----- PHOTO INTERP - - - - SURVEY _____ OU LIMITS - - - - VEGETATION PRESENT IMPACT APPROVED/TAKING APPROV/NOT TAKING NOT APPROV/TAKING WETLAND AREA 516 COVER TYPE
18.4	0.00	0.06	0.00	15	NONE	
18.4	0.00	0.04	0.00	15	NONE	
18.4	0.00	0.02	0.00	15	NONE	
18.4	0.00	0.02	0.00	15	NONE	
AGENCY S.F.W.M.D.		PHOTO INTERP SURVEYED		(Y) / N Y / (N)	EXHIBIT DATE 12-08-06	
		NOTE: THIS EXHIBIT IS TO BE USED IN CONJUNCTION WITH TABLE 11.		<b>DISNEY VACATION CLUB DISNEY ANIMAL KINGDOM LODGE</b>  COMPARISON OF ACTUAL VERSUS PERMITTED WETLAND IMPACT ACREAGE		OPP UNIT NUMBER  15



A PORTION OF WETLAND IMPACT # 865					PREVIOUS IMPACT	LEGEND
WETLAND SYS No.	LTP IMPACT (PER TABLE 11)	ACTUAL IMPACT	REMAINING IMPACT	OU No.		
18.13	0.00	0.03	0.00	17	NONE	- - - - PHOTO INTERP - - - - SURVEY - - - - OU LIMITS - - - - VEGETATION // // // PRESENT IMPACT [Solid Black] APPROVED/TAKING [Stippled] APPROV/NOT TAKING [Cross-hatched] NOT APPROV/TAKING [Stippled] WETLAND AREA COVER TYPE
AGENCY S.F.W.M.D.		PHOTO INTERP SURVEYED		Y / (N) (Y) / N	EXHIBIT DATE 12-08-06	516
<b>PBSJ</b> NOTE: THIS EXHIBIT IS TO BE USED IN CONJUNCTION WITH TABLE 11.		<b>DISNEY VACATION CLUB</b> <b>DISNEY ANIMAL KINGDOM LODGE</b> COMPARISON OF ACTUAL VERSUS PERMITTED WETLAND IMPACT ACREAGE				OPP UNIT NUMBER 17

# **Executive Summary**



## 1.1 INTRODUCTION

The purpose of this report is to provide drainage design documentation with sufficient detail to receive approval from the South Florida Water Management District (SFWMD) and Reedy Creek Improvement District to conduct site improvements and a surface water management system. The Disney Vacation Club at Disney's Animal Kingdom Lodge Annex project includes a 472 units, restaurant, swimming pool, spa, pool bar, tennis courts, roadway improvements and surface parking. The site is located in Section 34, Township 24, Range 27 just west of the existing Disney's Animal Kingdom Lodge in Orange County, Florida. See the Location Map.

### A. Existing Conditions

Pond 302- It collects storm water runoff from parts of the existing Savannah as well as the Animal Building access road. The basin contributing to this pond has an area of 18.51 acres.

The pond has a concrete fabriform riprap weir that discharges directly into Wetland 18.4 that has an area of 10.1 acres. The NWL area is 1.76 acres. The bleed down control device is a Type 'C' inlet that has an 18-in weir at an elevation of 101.23. The outfall pipe from the drop structure is connected to a bubble-up structure at Wetland 18.13. The normal water elevation in the pond is 100.50-ft, which is just slightly higher than the adjacent wetland, 100.45-ft. This difference helps prevent the pond from drawing down the stages in the wetland.

Pond/Basin 100- It collects storm water runoff from the majority of the existing resort site including the cast (employee) and guest parking lot as well as Osceola Parkway. The total basin area contributing to the pond is 97.89 acres. The pond outfalls to an existing wetland.

Wetland 18.4- It is 10.1 acres in size. The basins contributing to the wetland (not including the wetland) 38.02 acres. A portion, 3.89 acres, is from off of the Disney property and is identified as Basin 309. Refer to the application sections for a greater description of the condition and classification of the wetland. The normal water level and seasonal high levels were 100.45 and 100.90 respectively from the original resort back in 1998. Included in the appendix are reports from the Geotechnical engineer showing the recorded ground water elevations collected throughout 2006. Additionally, an Environmentalist studied the wetland to determine current NWL and SHWL and concluded that the elevations from 1998 are consistent with the conditions. The wetland has a control structure that is connected to the pipe that controls Pond 302. The outfall for this pipe is a bubble up structure located on the southern edge of Wetland 18.13. This was constructed to prevent the pond from over hydrating the wetland during larger storm event.

Wetland 18.13- This wetland is located along the northern edge of this Project and the existing Resort. It is also the outfall for the existing Resort. It has a slightly lower elevation than 18.4.

## B. Proposed Conditions

The proposed Resort site is broken down into the following areas:

Resort Building- There are 18 5-story beads and a check-in building that are all connected in the form of a chain. The roof leaders are collected in a network of pipes that are routed directly to the wetlands (Roof South 4.56 acres goes to Wetland 18.4 and Roof North is 1.37 acres and it is routed to Wetland 18.13) to help keep them hydrated during frequent storm events that the ponds do not normally overflow. The outfall points were strategically chosen to distribute the runoff throughout the wetland.

Savannah- The main attraction for the guests at the resort is the view of the free-roaming animals in the Savannah. A majority of this area will be left in its natural state. There will be several soil cement paved roads to allow for fire access and off-road vehicles to serve the needs of the animals. The grade typically goes from east to west and will be collected in area drains and then routed under the building in concrete encased reinforced concrete pipes to both Pond 302 and 303 for water quality treatment.

Pool Amenity Area- This 1.5-acre area consists of two buildings, swimming pools and lounging areas. Except around areas that food will be consumed and where pool water will be concentrated, deck and area drains will collect storm water runoff and then routed to Pond 303 for water quality treatment.

Tennis Court and BBQ Area- This area is just south of the existing Pond 302 and will be routed to Pond 302 for water quality treatment.

Animal Buildings AP89 and AP88- The roof area from both of these structures will be routed directly to Wetland 18.2 and 18.13 respectively. The impervious roof area for the two buildings is 0.39 acres each. Care will be taken to construct spreader swales to prevent point discharge rates exceeding 2 feet per second.

Animal Building Access Road- This two lane impervious road wraps around the west side of Wetland 18.4 and provides access to the two Animal Building and during construction to the trailer compound and lay down area. The basin from this road is split and will be routed to both of the proposed storm water ponds for water quality treatment. This road was permitted as impervious under a previous application. The permanent section under this application is impervious, either soil cement or asphalt.

Construction Trailer Compound Area- This temporary area is on the west corner of the project and is 4.2 acres. The parking lot will be asphalt and area drains will collect the storm water runoff. It will be routed to Pond 302 for water quality treatment.

Construction Contractor Parking and Laydown Area- This temporary pervious area is located north of the project. The area is 12.80 acres. There is no proposed impervious area planned for this part of the site. The access road and drive lanes will be an 8-inch layer of granite aggregate (No. 57 stone) on a layer of Tensar Biaxial Geogrid on 12-inches of compacted subgrade consisting of well draining sand. Based on meetings with RCID it was decided that

this area will not require water quality treatment because we conservatively estimate that the porosity of the aggregate will be 0.3 for an 8-inch thick layer provides a storage of  $0.3 \times 8 = 2.4$ -inches, which is in excess of the required one inch. The temporary 600-car parking lot for contractors will be stabilized with a turf grid to provide a pervious, well draining surface. The lay down area for construction will be left undisturbed and will not be graded. Upon completion of the construction activities this area will be restored to its natural condition.

Cast Parking and Osceola Parkway Re-alignment- Osceola Parkway is being shifted out to accommodate extra parking spaces that the new resort is eliminating from the Cast parking Lot. There is a net decrease in impervious area. Basin 100 existing was 97.89 acres. In the proposed condition Basin 100 is 95.99 acres (a reduction of 1.9 acres). Pond 100 will not be impacted nor modified as a result of this Project.

Off-site- The off-site area (Basin 309) of 3.89 acres will still be routed directly to Wetland 18.4. The ditch bottom inlet that collects the storm water runoff is being relocated closer to the property line due to the development of the Tennis Court and BBQ amenity area. There is no change to the outfall structure in Wetland 18.4.

Guest Parking- There are 472 proposed parking spaces. The first floor of each of the guest buildings will be reserved for parking. This plan helped decrease the total site impervious area and water quality volume required. The remaining spaces are in surface lots and the storm water runoff will be collected in inlets and routed to Pond 302 for water quality treatment.

Table 1. Basin Area Breakdown

Basin	Area (ac)	Impervious Area (ac)
Roof-South	4.56	4.56
Roof-North	1.37	1.37
309	3.89	0
302	25.6	4.69*
303	22.1	3.44*
Wetland	13.2	0
Wetland Offsite	10.94	0
AP-88	0.39	0.39
AP-89	0.39	0.39
Contractor Laydown	12.80	0
Total	95.24	14.84

\*Basin 302 and 303 impervious area excludes Ponds at 3.13 and 2.22 acres respectively.

Table 2. Project Limit Area Breakdown

Description	Area (acres)	Area (%)
Imp	14.84	16%
Pervious	61.33	67%
Lakes	5.35	6%
Wetlands	10.1	11%
Total	91.62	100%

### C. Primary System

Pond 302 (modified)- Because of the location of proposed development, Pond 302 is being partially filled on the north east side and expanded to the west side to provide additional water quality volume. The normal water elevation of the pond will remain at 100.50 or 0.05 feet above Wetland 18.4. The NWL area will increase from 1.76 acres to 3.13 acres. The basin contributing to this pond is 25.6 acres, CN of 73 and a time of concentration of 49 minutes. The existing weir that connected the pond to the wetland is being relocated to the west. In order to obtain a positive outfall into the wetland, a small area of 0.04 acres will be graded and replanted beyond the wetland line. This is a wetland impact. The over land fabriform riprap weir will be located in the upland. The elevation of the weir is set at the elevation of the required water quality volume or 101.23. The elevation of the normal water for Wetland 18.4 is 100.45. The control structure was located to provide a point of hydration to the wetland near an existing depressed area where the water pools under saturated conditions. The bleed down control device is a drop structure. It was designed to retain greater than half of the water quality volume for greater than the first 24 hours. The structure is a Type 'C' inlet with a vertical horizontal weir 18 inches wide at an normal water elevation of 100.50. The outfall pipe terminates at Wetland 18.13 at a bubble up structure; same as existing conditions.

Pond 303- This new pond treats the storm water runoff from the northern half of the proposed Resort. The normal water elevation is also set at 100.50. The basin contributing to this pond is 22.10 acres, CN of 63 and a time of concentration of 45 minutes. This 2.22-acre pond will also outfall to Wetland 18.4 via an over land fabriform riprap weir. The invert is set at the water quality volume elevation of 101.30. The bleed down control device is a drop structure. It was designed to retain greater than half of the water quality volume for greater than the first 24 hours. The structure is a Type 'C' inlet with a vertical horizontal weir 18 inches wide at an normal water elevation of 100.50. The outfall for this pipe connects to the same system as Pond 302.

Wetland Impact- Every effort was made to minimize the impact to the wetlands while still proving the guests a memorable experience. To reduce the foot print of the site, the first floor of the Resort is reserved for parking. Minimum setbacks were required between the existing and proposed Resort in order to assure that the animals would be able to roam freely and unhindered. The final site plan maximized to Savannah area, met the program needs for the Owner and reduced the wetland impact to less than one acre. The impacted edge of the wetland will be a sheet pile wall. The wetland will be hydrated from off-site area, adjacent

area, over flow from Ponds 302 and 303, and direct roof drainage. The locations of the inflows were designed to be spread out to provide an even distribution of water. As with the existing system, the wetland will have a control structure to prevent extended periods of high water elevations. This Type 'C' inlet will have the same control elevation as the existing structure of 100.90. In order to construct the wetland control structure, there will be a 0.02 acres impact to the wetland.

#### D. Secondary System

Pond 302 Network- This series of pipes and inlets was designed using StormCAD with a tailwater from the AdICPR 10-yr 72-hr post development model for Pond 302. The hydraulic grade line was checked at each inlet to make sure that the system could handle the storm water runoff from the design storm.

Pond 303 Network- This series of pipes and inlets was designed using StormCAD with a tailwater from the AdICPR 10-yr 72-hr post development model for Pond 303. The hydraulic grade line was checked at each inlet to make sure that the system could handle the storm water runoff from the design storm.

Roof Drains- The impervious area from the building roofs were designed to collected and discharge directly into the adjacent wetlands. Most of the Resort roofs are routed to Wetland 18.4, while the northern section goes to Wetland 18.13. Post development basins we divided to closely match pre development basins. Animal Buildings AP88 and AP89 discharge directly to Wetland 18.13 and 18.2 respectively.

### 1.2 DESIGN CRITERIA

The applicable regulations of SFWMD are provided in the Management and Storage of Surface Waters - Permit Information Manual (Volume IV).

#### A. Water Quality Treatment Volume

There are two onsite wet detention ponds designed that will discharge to a wetland that will be impacted by less than one acre. A variety of Best Management Practices (BMPs) will be incorporated into the surface water management system to mitigate potentially adverse impacts on the quality of off-site surface waters.

Table 3. Water Quality Volume Summary

Node	Water Quality (ac-ft)			
	Vol Req'd	Vol Prov'd	Recovered in 24-30 hrs	Recovered in 14-days
Pond 302	2.13	2.13	1.07	2.13
Pond 303	1.84	1.84	0.93	1.84

For the pond depths the following criteria were evaluated.

Table 4. Minimum Area of Shallow Littoral Zones\*

Pond 302	20%	of wet retention area	2.98	acres =	0.596
Pond 303	20%	of wet retention area	2.60	acres =	0.520
Basin 302	2.50%	of basin area + pond	23.95	acres =	0.599
Basin 303	2.50%	of basin area + pond	23.40	acres =	0.585

\*Littoral area shall be less than 6 feet deep.

Table 5. Minimum Area to be Deeper than 12 feet

Pond 302	25%	of wet detention area	2.98	acres =	0.745
Pond 303	25%	of wet detention area	2.60	acres =	0.650

Thus, the two ponds can generally be as shallow as 6 feet in depth. Pond 302 must have a minimum of 0.60 acre and Pond 303 0.52 acre shallower than 6 feet. It is recommended that Pond 302 and Pond 303 have at least 0.75 and 0.65 acre, respectively, at least 12 feet in depth.

## B. Water Quantity

Since there is no pre/post development maximum flow discharge rate attenuation, the outfall structures will be designed to keep the point velocity rates below two feet per second with spreader swales and bubble up structures.

## 1.3 HYDROLOGIC AND HYDRAULIC MODELING

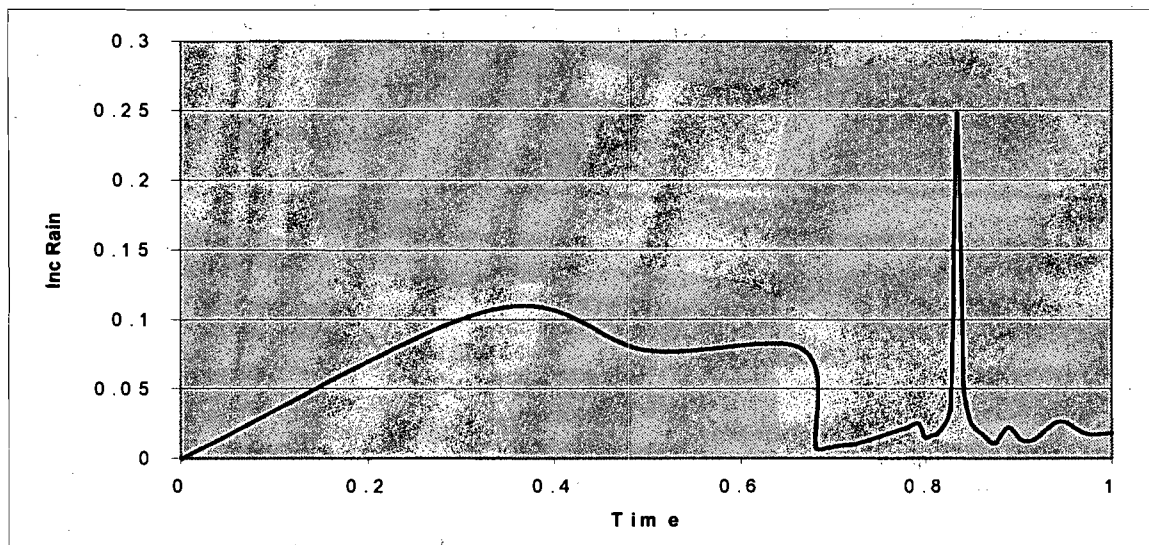
### A. Method

Runoff rates from each drainage basin were estimated using the Santa Barbara Urban Hydrograph Method. Input data required for this method includes: basin-area (acres), curve number (CN), time of concentration (minutes), total rainfall (inches), and synthetic rainfall distribution. Basin areas, curve numbers, and times of concentration have been determined for each individual drainage basin. The computations supporting the values used to model post-development conditions are provided in this report. The SFWMD-72 rainfall distribution (graph shown below) was utilized in generating all runoff hydrographs.

Table 6. Rainfall Table Summary

Frequency (yr)	Duration (hr)	Rainfall (in)
3	24	5.4
10	72	10.19
100	72	14.27

Graph 1. SFWMD 72hr Distribution



Post-development hydrographs and flood routing analyses were developed utilizing a computer program entitled "Advanced Interconnected Channel and Pond Routing", Version 3.02 (AdICPR), developed by Streamline Technologies, Inc., located in Winter Park, Florida.. AdICPR computes rainfall excess using the SCS curve number and infiltration formulae. It is then applied to a unit hydrograph based on basin characteristics and shape factor to obtain runoff throughout the entire storm duration. Hydrographs are then routed through storage nodes connected by weirs, pipes, channels, drop structures, etc., to determine flood elevations and peak discharge rates throughout the area being modeled. The selection of this program was made because of its ability to determine the impact of tailwater on outflow and stage for various control structures.

Table 7. Pond Peak Stage Summary

Node	Maximum Stage (ft)		
	3yr-24hr	10yr-72hr	100yr-72hr
Pond 302	101.4	102.14	102.96
Pond 303	101.3	102.15	102.96
Wetland 18.4	101.1	102.13	102.95

Table 8: Pond Peak Flow Summary

Node	Maximum Discharge Rates (cfs)		
	3yr-24hr	10yr-72hr	100yr-72hr
Pond 302	6.7	31.2	37.6
Pond 303	3.7	21.9	31.5
Wetland 18.4	5.8	20.9	25.7

**B. Curve Numbers**

Curve numbers are utilized in the Santa Barbara Urban Hydrograph Method to account for the variation of runoff characteristic for differing soil types and ground cover. The soil types within the sub-basins vary from type A to B/D to C. The limits of the existing soils were obtained from the Soil Conservation Service (SCS) Soil Survey of Orange County, Florida. The following table excludes the lay down area. The total basin area is 82.44 acres (95.24-12.80).

Table 9. Soil Type Summary

Soil Number	Soil Name	Hydrologic Group	Area (ac)
01	Arents	C	3.0
03	Basinger	D	17.9
04	Candler	A	15.1
20	Immokalee	B/D	5.9
34	Pomello	C	7.8
37	St Johns	B/D	0.5
42	Sanibel	D	0.2
46	Tavares	A	5.6
54	Zolfoz	C	26.4

Curve numbers used for the analyses contained in this report were taken from the SCS TR-55 manual (Second Edition, June 1986). By superimposing drainage basins with soil and land use delineations, weighted runoff curve numbers were calculated for each drainage basin. The Curve Number tabulations are included in this report.



### C. Time of Concentration

In addition to basin drainage area and curve number, the time of concentration is utilized within the Santa Barbara Urban Hydrograph Method to determine runoff rates. By definition, the time of concentration is the time it takes runoff to travel from the hydraulically most distant part of a watershed to a point of interest within the watershed. Times of concentration are computed by determining the path of longest travel time within each of the delineated basins. Flow velocities and travel times are estimated from land slopes and land cover conditions. Times of concentration for this project were estimated using the methods outlined in the SCS TR-55 manual (Second Edition, June 1986). The times of concentration which were calculated for the post development basins are provided in this report. For roof area basins the time was assumed at 15 minutes.

### D. Spreader Swales

The spreader swales were designed to discharge at velocities less than 2.0 feet/sec. With a height of 0.50 feet the length of the design swale is 20 feet.

ICPR2 - 10Yr/72Hr Storm Peak Outfall Discharge (Q10yr) = 20 cfs

Number of Outfall Weirs Discharging to Spreader Swale = 1

Design Discharge (Qd) = (Q10yr) / (Number of Weirs)

Using Weir Equation ( $Q = C \times L \times H^{1.5}$ ), Solve for Flow Depth (H):

C = 2.80 (weir discharge coefficient)

L = 20.0 feet (length of spreader swale at each outfall)

H = 0.50 feet (height of water over swale outfall)

V = 1.98 ft/sec (Allowable Velocity = 2.0 ft/sec, per SFWMD 7.1G)

## 1.4 SECONDARY STORM WATER COLLECTION SYSTEMS

Modeling of the proposed storm sewer collection systems serving the proposed project has been accomplished utilizing a computer program entitled "STORMCAD" developed by Haestad Methods, Inc. located in Waterbury, Connecticut. The program computes the hydraulic gradeline (HGL) elevation based on friction, entrance, exit, and structure (minor) losses. The required input data includes the following:

- Drainage Area (acres)
- Runoff Coefficient "C"
- Tailwater Elevation (feet)
- Structure Number and Associated Energy Loss Coefficient
- Pipe Dimensions (inch x inch)
- Manning's Roughness Coefficient ("n")
- Pipe Length (feet)
- Pipe Invert Elevations (feet)

- Gutter Flow Line Elevations and/or Manhole Rim Elevations (feet)

The proposed storm sewer systems have been designed to carry the runoff from the 10-year frequency storm event (Zone 7). Peak discharges to be conveyed by the storm sewer system were computed by the Rational Method in accordance with Florida Department of Transportation (FDOT) practices as outlined in the FDOT Drainage Manual. Runoff coefficient for drainage sub-basins were computed based on values of 0.95 and 0.20 for impervious and pervious respectfully.

## **1.5 ENVIRONMENTAL CONSIDERATIONS**

### **A. Wildlife Surveys and Agency Comments**

Clearing and grubbing activities for site development may impact gopher tortoise and other listed species habitat. As per special condition #19 of permit # 48-00714-S:

"This permit conceptually authorizes impacting the habitat of such species within development areas, provided that the FGFWFC has confirmed, or hereafter does confirm either by permit, letter or agreement, whichever is required, that impacting the habitat of such species:

A) Does not jeopardize the continued existence of that species; or

B) Has been adequately mitigated pursuant to the rules or criteria of the FGFWFC, utilizing on-site, off-site or other forms of mitigation allowed by the FGFWFC."

The Florida Game and Fresh Water Fish Commission (FGFWFC) issued to Disney Development Company the following permits:

- 1) "Permit for Taking of Gopher Tortoises and Their Burrows", # OSC-4, November 12, 1992
- 2) "Permit for Taking Gopher Frog, Florida Pine Snake, Florida Mouse, and Sherman's Fox Squirrel and Their Nests", # OSC-SSC-1, July 19, 1994
- 3) "Permit For Relocation of Indigo Snake, Short-tailed Snake, and Sand Skink", # OSC-TSR-1, August 9, 1994.

### **B. Wetland Mitigation**

This proposed modification would authorize unavoidable, additional wetland impacts to the isolated, herbaceous Wetland 18.4 which total 0.93 acres, and Wetland 18.13 for a total of 0.03 acres, offset by the preservation of previously permitted impacts to wetlands 5.10 (impact # 32), 5.12 (impact # 31), 5.14 (impact # 30) and 5.19 (impact # 35). The additional impact is proposed due to site constraints detailed in the following justifications:

1. There is a programmatic minimum, 320' distance requirement between buildings for animals on exhibit.

2. Programmatic requirement of building design elevation (related to slopes that impact wetland).
3. Programmatic requirements of using existing, AK Lodge Savannahs.
4. Programmatic requirements of proximity to AK Lodge for joint use of animal care, guest check-in, cast parking, and laundry facilities.
5. Project feasibility requirement of 80% Savannah view.
6. Avoidance of impacts to the northern wetland (Wetland 18.13) except for 0.03 acres for the outfall bubble up structure.
7. Emergency ingress / egress, corridors between buildings and the Savannah, and access to both sides of the buildings.
8. Bus and automobile circulation requirements.
9. Programmatic requirements of parking required by valet service, restaurants, and special events parking.

Site planners have avoided impacts to other wetlands on the site, and minimized the proposed wetland impact to the greatest extent practicable, resulting in less than an acre of impact. Avoidance and minimization measures include the following:

1. Parking and service corridor located under the building (only half of needed parking spaces could be accommodated).
2. No more than minimum distance kept between building and Wetland 18.13 to allow animal movement.
3. Building layout and other site features generally accommodate shape of Wetland 18.4.
4. Multi-story project to minimize building footprint.
5. Cast parking at the existing Animal Kingdom Lodge lot.

In some areas along Wetland's 18.4, 18.2 and 18.13 the 25-ft buffer was encroached. To make up for the loss other areas along the buffer was increased. Below is a summary table showing the balance of area for the buffer impacts.

Table 10. Wetland Buffer 18.13

Wetland 18.13	Area (sf)	Area (ac)
Buffer Lost	9,181	0.21
Buffer Replaced	10,097	0.23

Table 11. Wetland Buffer 18.4

Wetland 18.4	Area (sf)	Area (ac)
Buffer Lost	9,757	0.22
Buffer Replaced	9,991	0.23

Table 12. Wetland Buffer 18.2

Wetland 18.2	Area (sf)	Area (ac)
Buffer Lost	2,879	0.07
Buffer Replaced	2,921	0.07

### C. Proposed Modification

A total of 0.93 acres of wetland impacts are proposed to Wetland 18.4, a 10.1 acre isolated, emergent marsh surrounded by xeric oak, sand pine, and long leaf pine. The proposed 0.93 acres of impact will occur mostly along the eastern edge of the wetland and at the Pond 302 outfall and at the Wetland overflow structure. Prior to excavation, sheet piling will be installed along the impact edge to prevent any impact to the remaining wetland area.

In order to bleed down the proposed storm water ponds there is a 0.03-acre impact into Wetland 18.13 for an RCP and a Type 'C' bubble up structure at a grate elevation of 100.25.

We are proposing as mitigation the permanent preservation of approximately 0.96 acres of previously permitted impacts. Wetlands 5.10 (impact # 32), 5.12 (impact # 31), 5.14 (impact # 30) and 5.19 (impact # 35) will be preserved and duly noted in Table 11.

### D. Hydroperiod Analysis

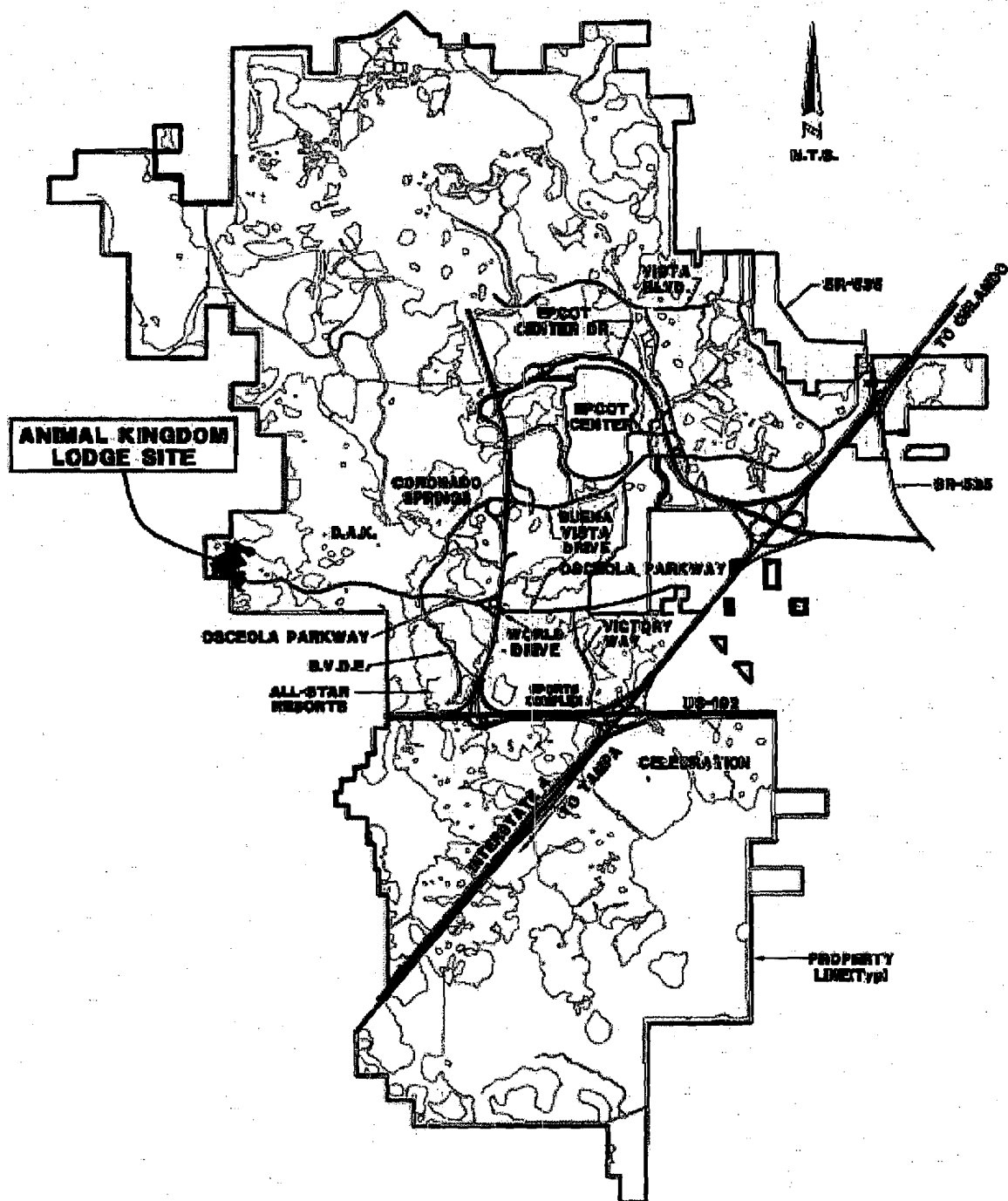
The following is an analysis to show that the wetlands will remain hydrated during post-development. The pre-development drainage patterns have been maintained as closely as possible for the post-development design. The wetland will receive storm water runoff from three sources, direct runoff from the undeveloped basin, roof water from the resort and overflow from weirs at the two ponds once the water quality volume is met. The wetland has a control structure set with a weir at elevation 100.90 with an orifice at 100.5.

The AdICPR pre and post development computer model output has been provided for the 3 year / 24 hour storm event. The following is a summary of the output for Wetland W18.4

Table 13. Wetland 18.4 Hydroperiods

Basin	NWL	SHWL	Max Stage 3yr/24hr
Basin 301 (Pre Development)	100.5	100.9	101.04
Wetland (Post Development)	100.5	100.9	101.0911

# Exhibits



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FIGURE  
1

LOCATION MAP  
DVC @ DAKL  
ANIMAL BUILDING CONSTRUCTION ACCESS  
ORANGE COUNTY, FLORIDA

**HARRIS**

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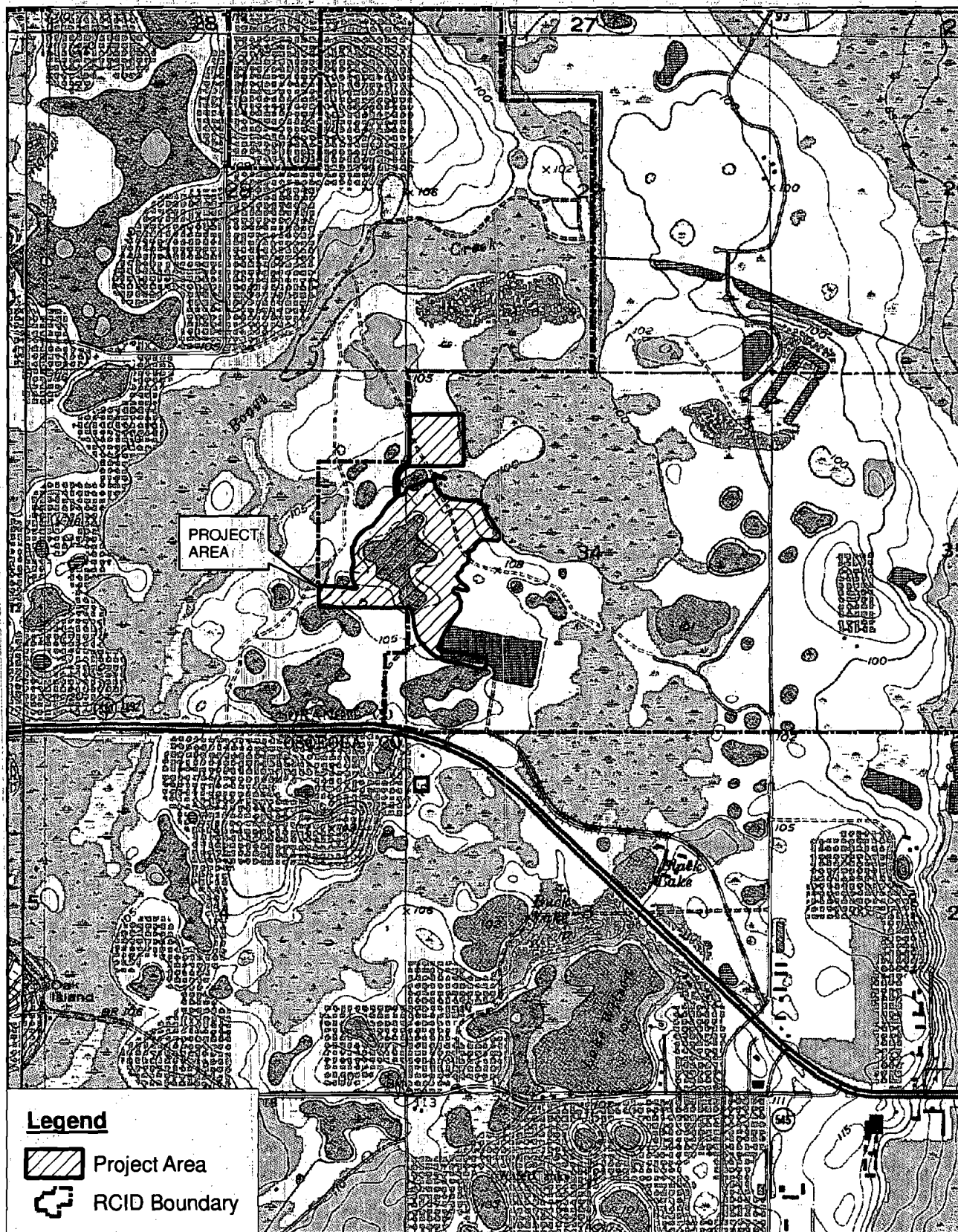
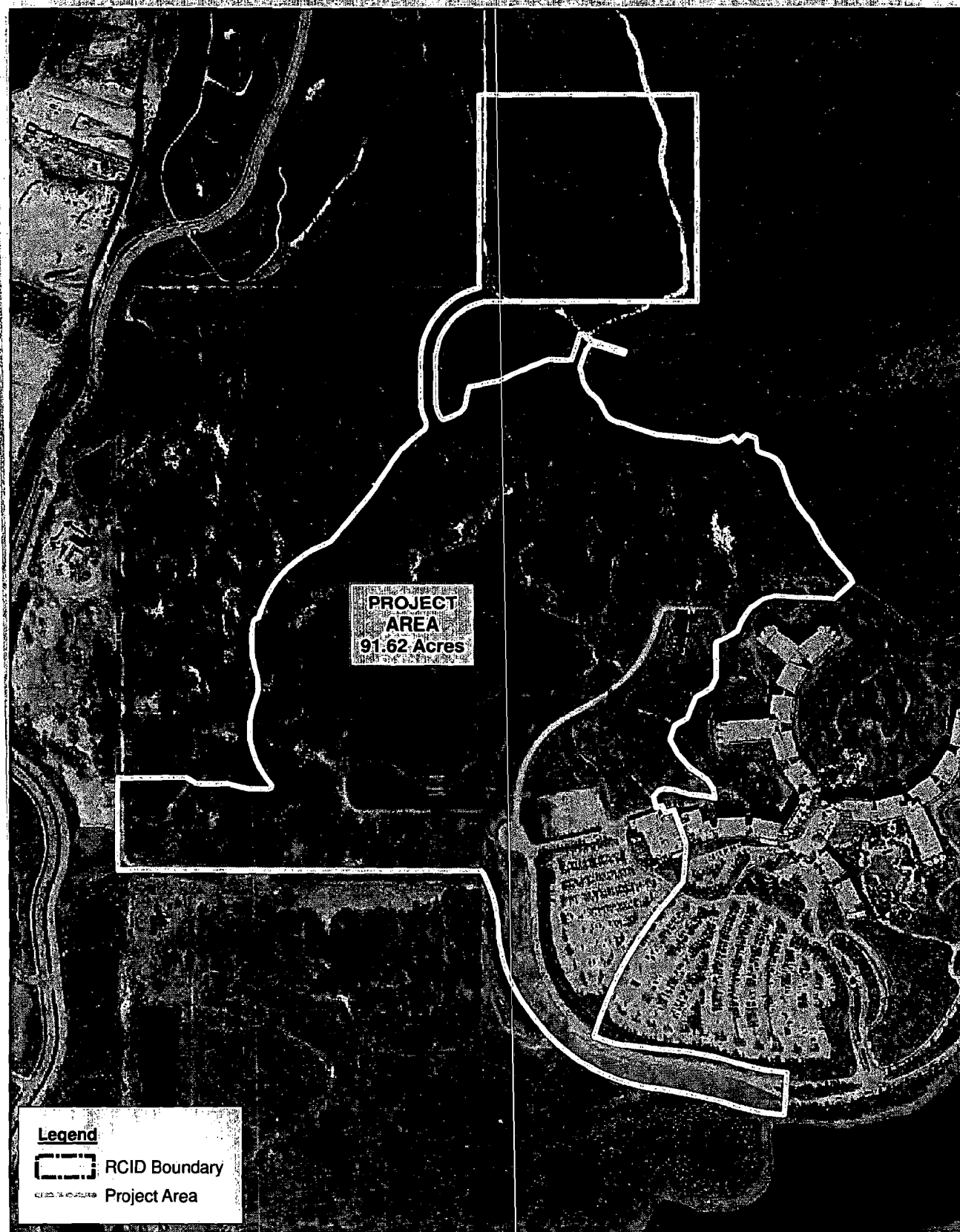


FIGURE  
2

USGS TOPOGRAPHIC MAP  
 DISNEY VACATION CLUB  
 ANIMAL KINGDOM LODGE  
 ORANGE COUNTY, FLORIDA

**HARRIS**

Harris Civil Engineers, LLC



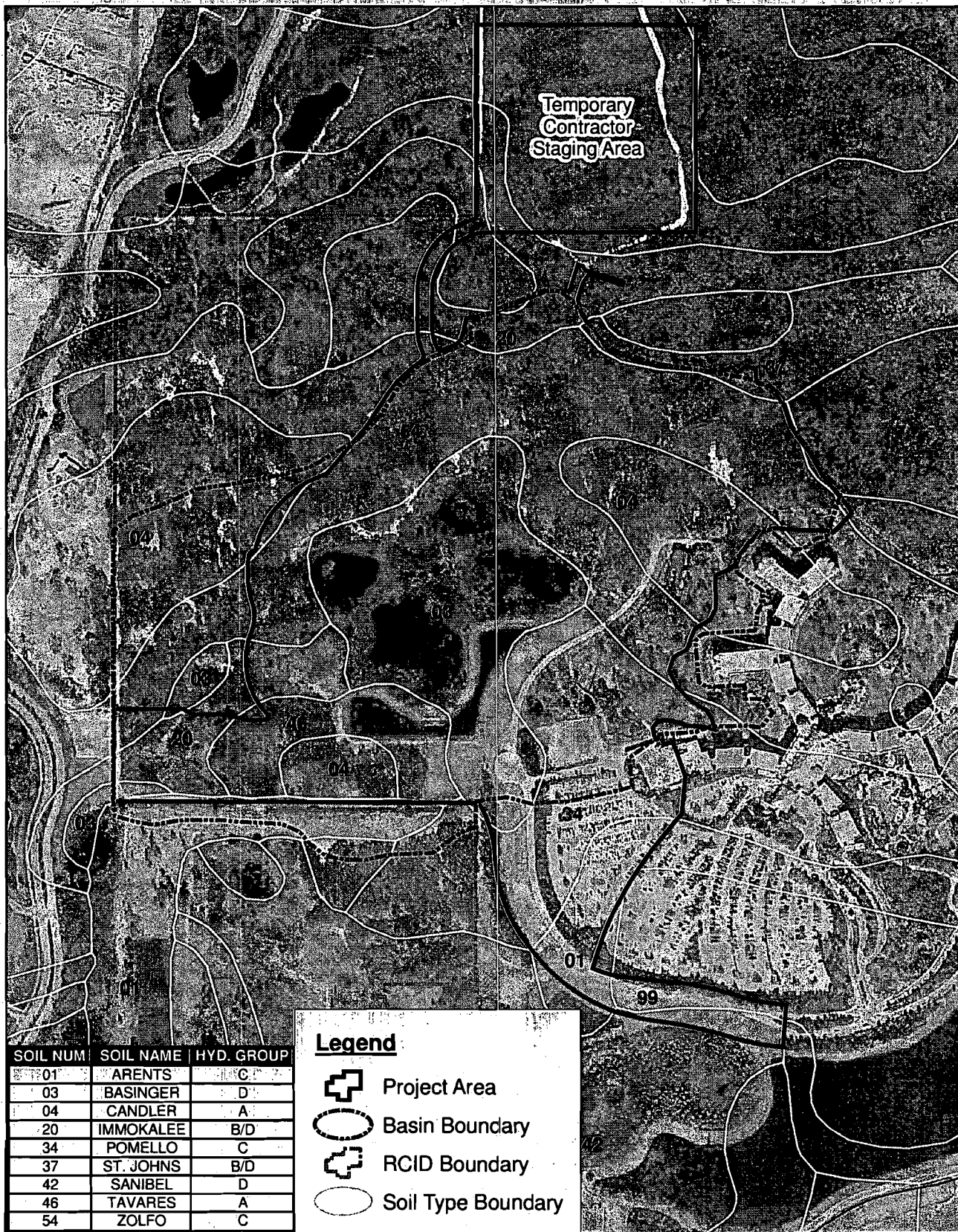
**FIGURE**  
3

**AERIAL PHOTOGRAPH**  
**DISNEY VACATION CLUB**  
**DISNEY ANIMAL KINGDOM LODGE**  
**ORANGE COUNTY, FLORIDA**

**HARRIS**

Harris Civil Engineers, LLC





Source: SJRWMD GIS  
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0 250 500 Feet

FIGURE  
4

POST DEVELOPMENT NRCS SOIL MAP  
 DISNEY VACATION CLUB  
 DISNEY ANIMAL KINGDOM LODGE  
 ORANGE COUNTY, FLORIDA

**HARRIS**

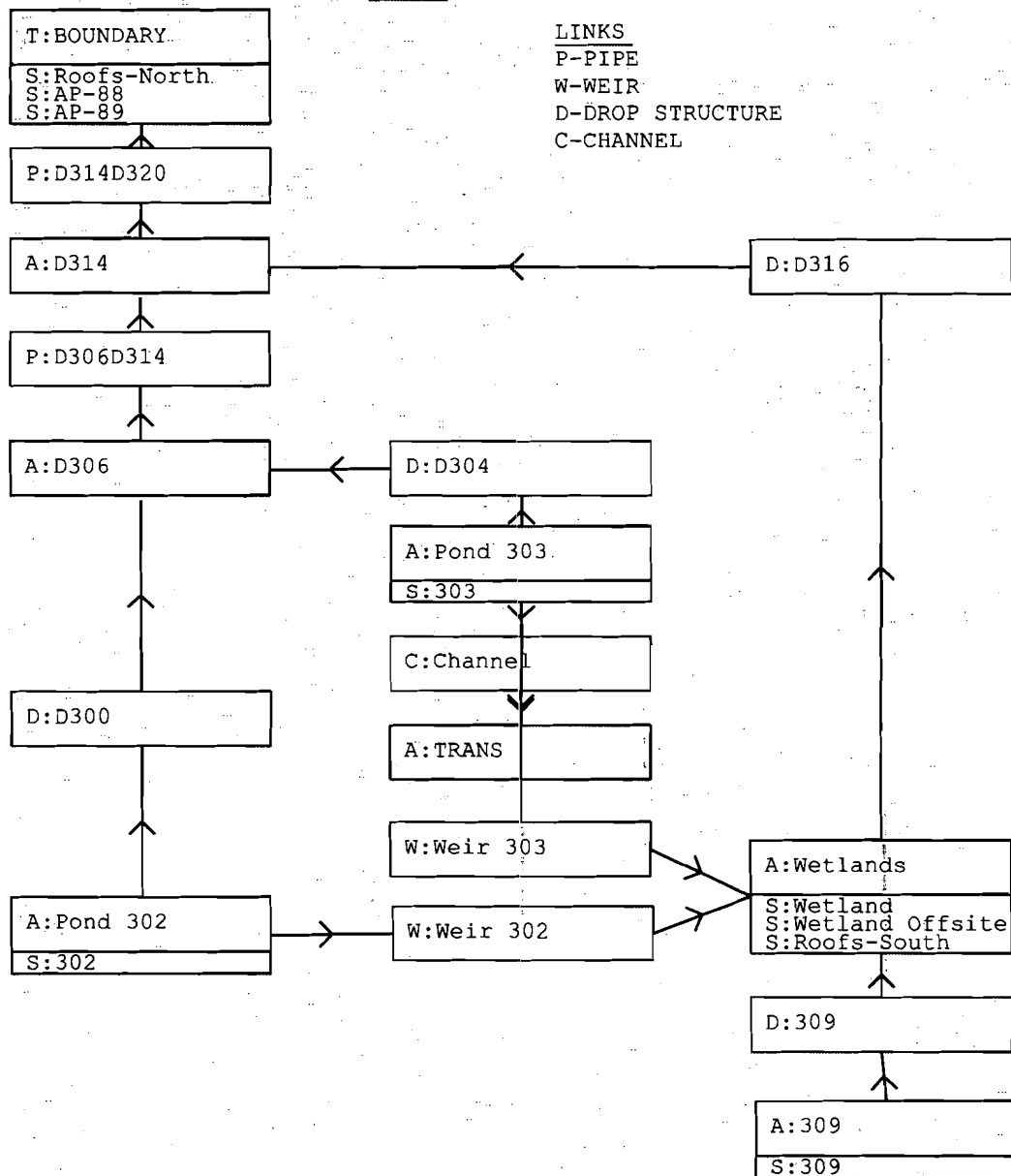
Harris Civil Engineers, LLC

NODES  
A-STAGE/AREA  
T-TIME/STAGE

BASINS  
S-SANTA BARBARA

LINKS  
P-PIPE  
W-WEIR  
D-DROP STRUCTURE  
C-CHANNEL

LEGEND



Source: g:\proj\6012015\civil\calcs\ladicpr\post development\post development 72hr rev.icp

Section: 34  
Township: 24 South  
Range: 27 East

**Disney Vacation Club @ DAKL**  
**Post Development**  
**Node Reach Diagram**

HCE#6012015

11-13-06

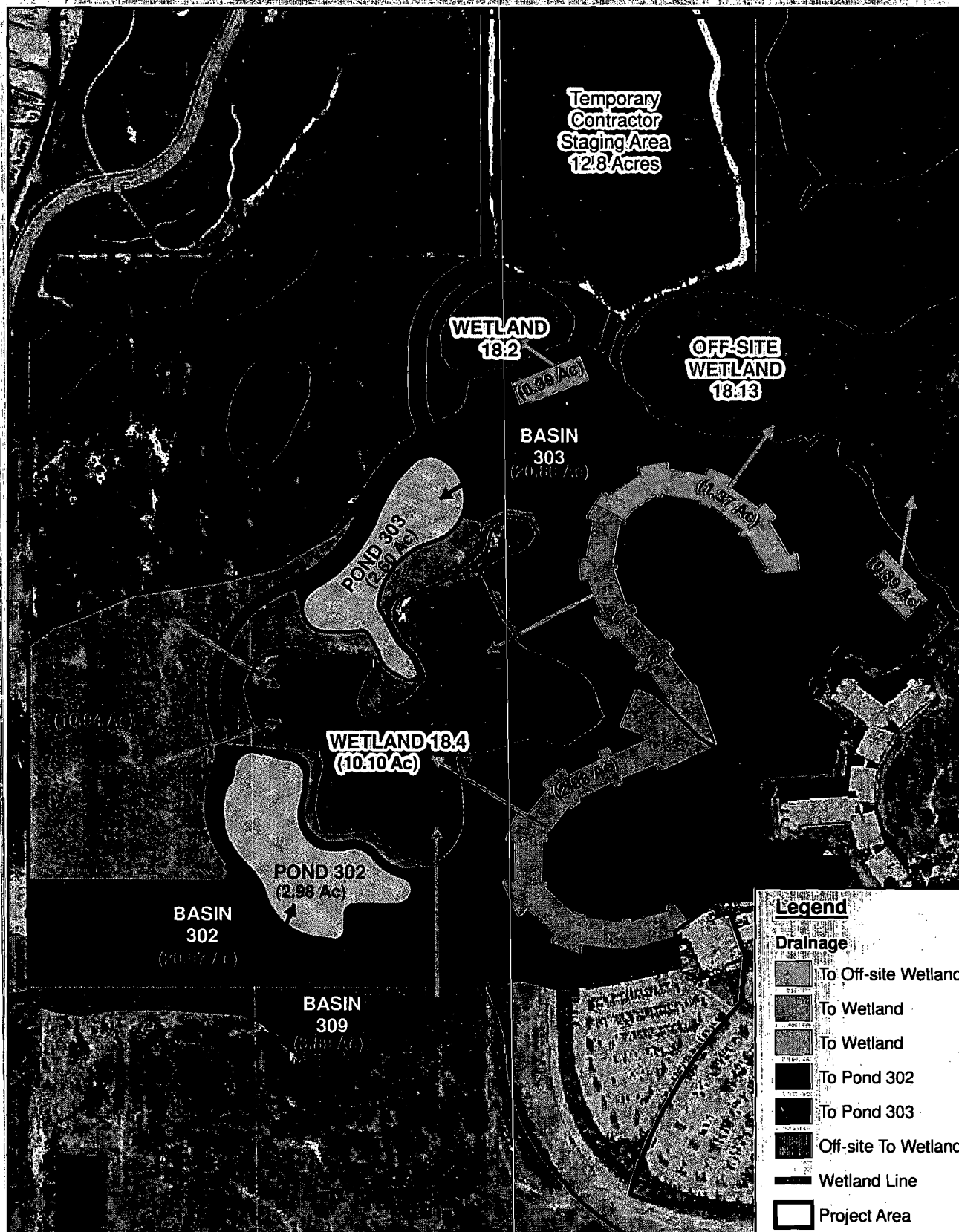
**Figure 5**

**Orange County**

**Florida**

**HARRIS**

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EB 9814



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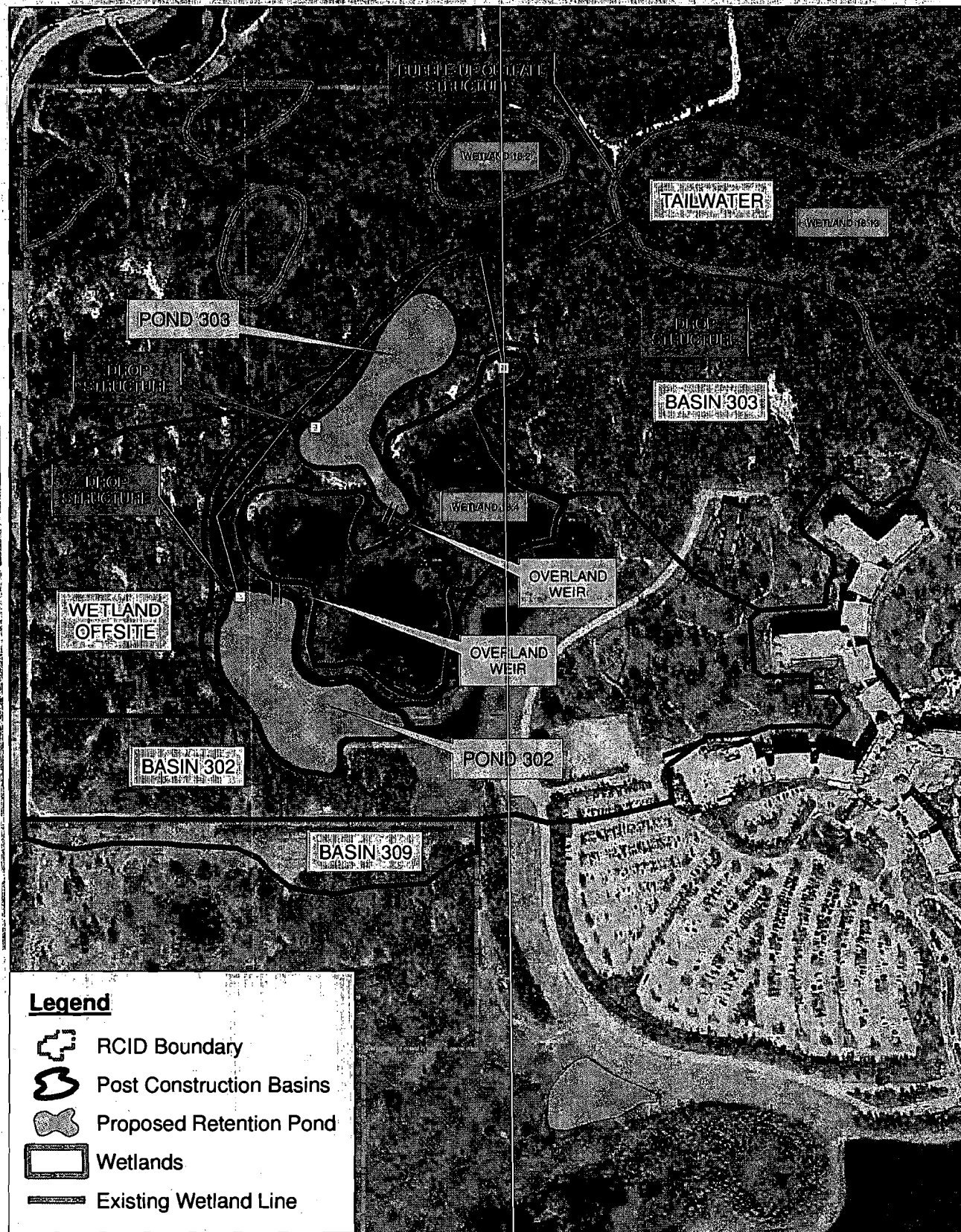
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**FIGURE 6**

**POST CONSTRUCTION DRAINAGE MAP**  
DISNEY VACATION CLUB  
DISNEY ANIMAL KINGDOM LODGE  
ORANGE COUNTY, FLORIDA

**HARRIS**

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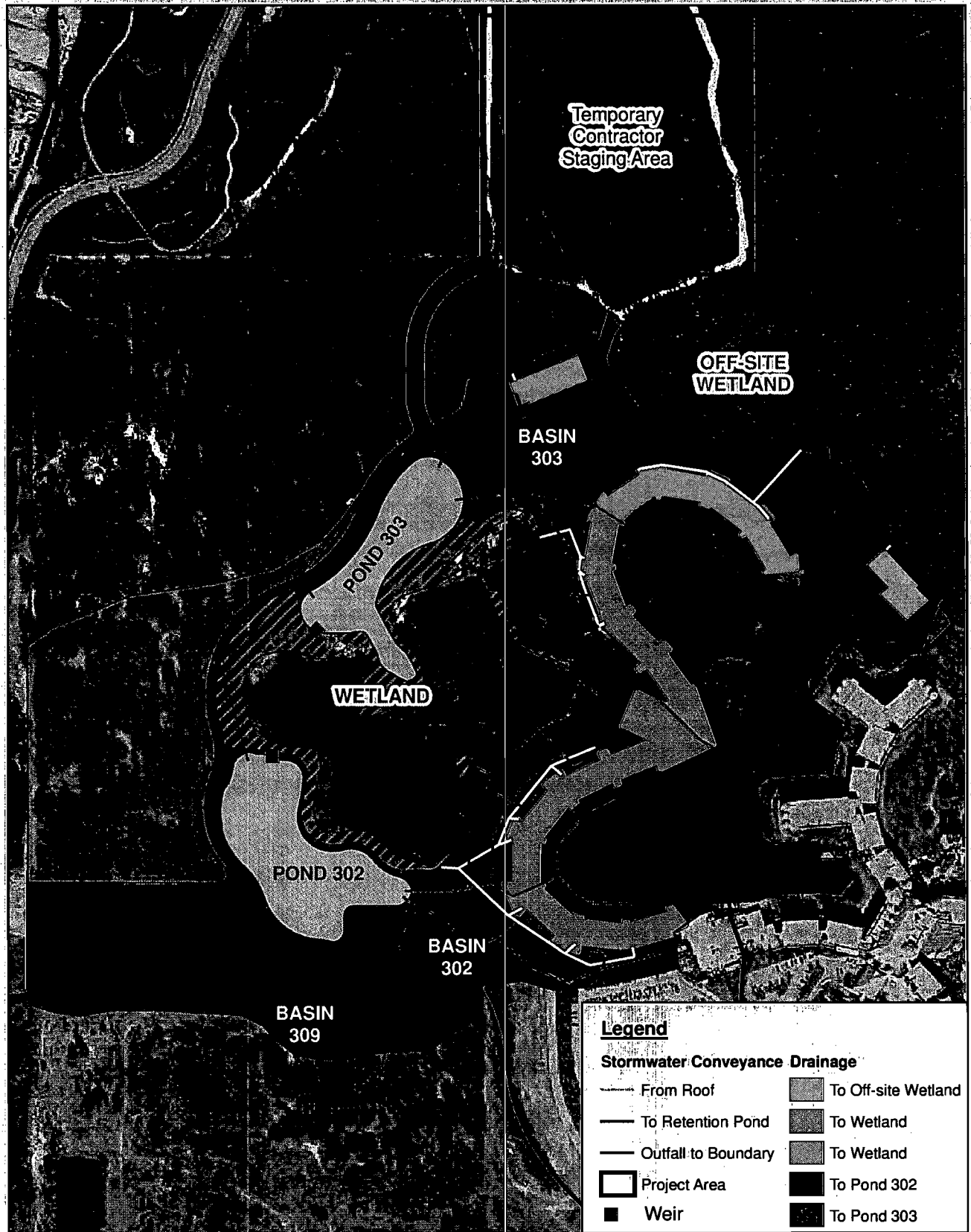
FIGURE  
7

NODE-REACH DIAGRAM  
DISNEY VACATION CLUB  
DISNEY ANIMAL KINGDOM LODGE  
ORANGE COUNTY, FLORIDA

**HARRIS**

Harris Civil Engineers, LLC





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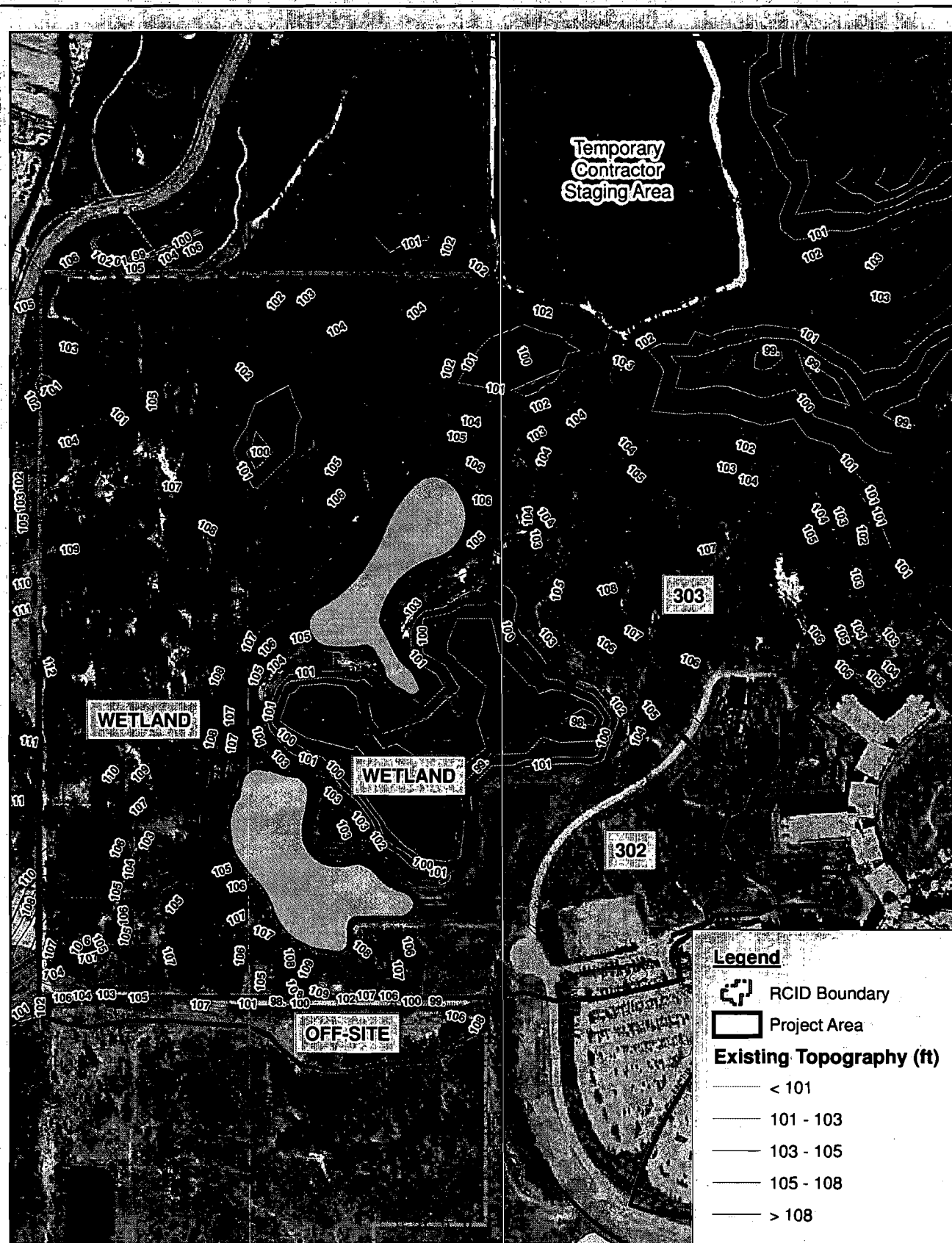
0 200 Feet

**FIGURE**  
8

**POST CONSTRUCTION STORMWATER CONVEYANCE**  
DISNEY VACATION CLUB  
DISNEY ANIMAL KINGDOM LODGE  
ORANGE COUNTY, FLORIDA

**HARRIS**

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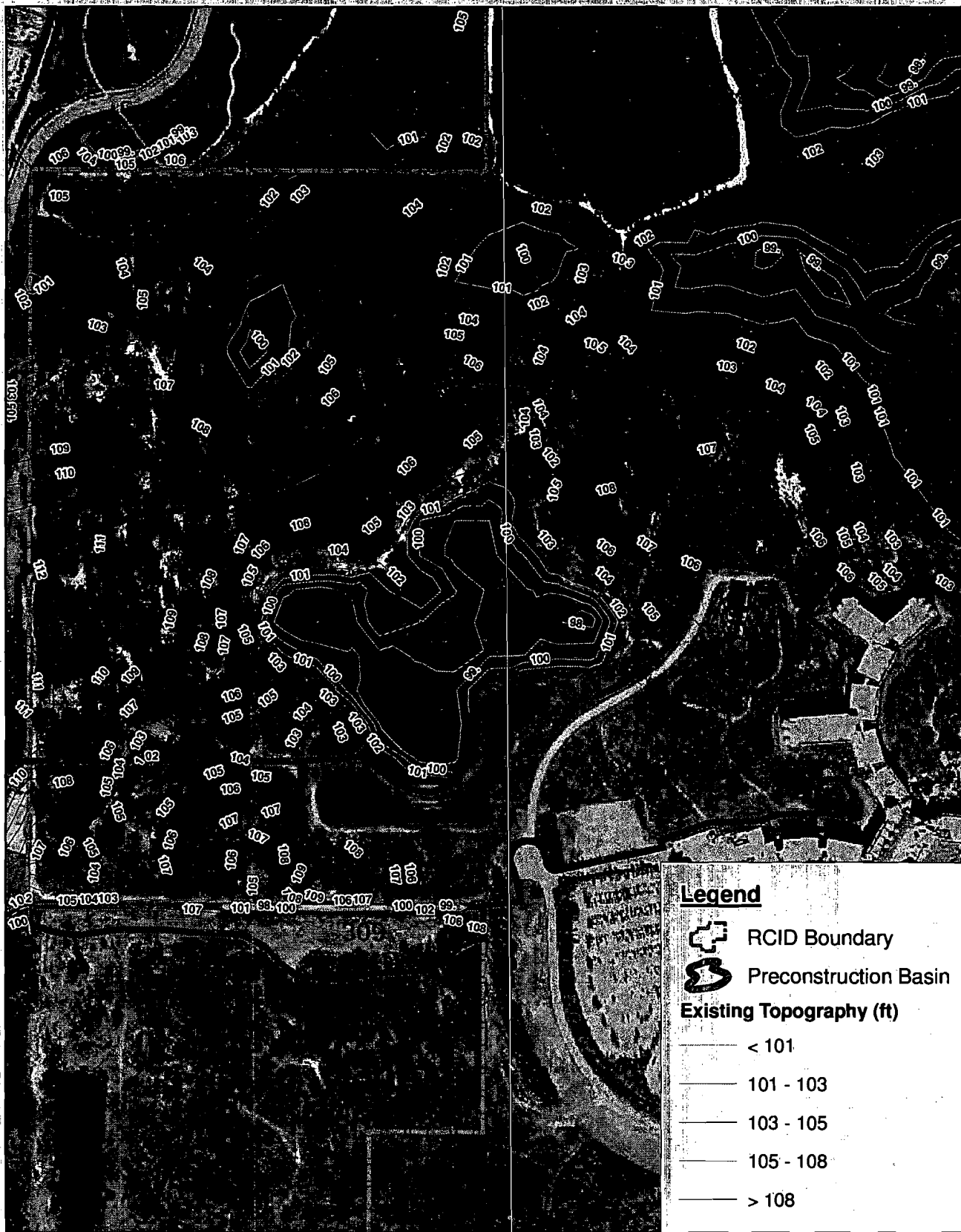
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0 200 400 Feet

FIGURE  
9

POST CONSTRUCTION DRAINAGE BASIN MAP  
DISNEY VACATION CLUB  
DISNEY ANIMAL KINGDOM LODGE  
ORANGE COUNTY, FLORIDA

**HARRIS**  
Harris Civil Engineers, LLC



File path: G:\PROJ\06012015\GIS\STORMWATER\EXISTING CONTOURS.MXD

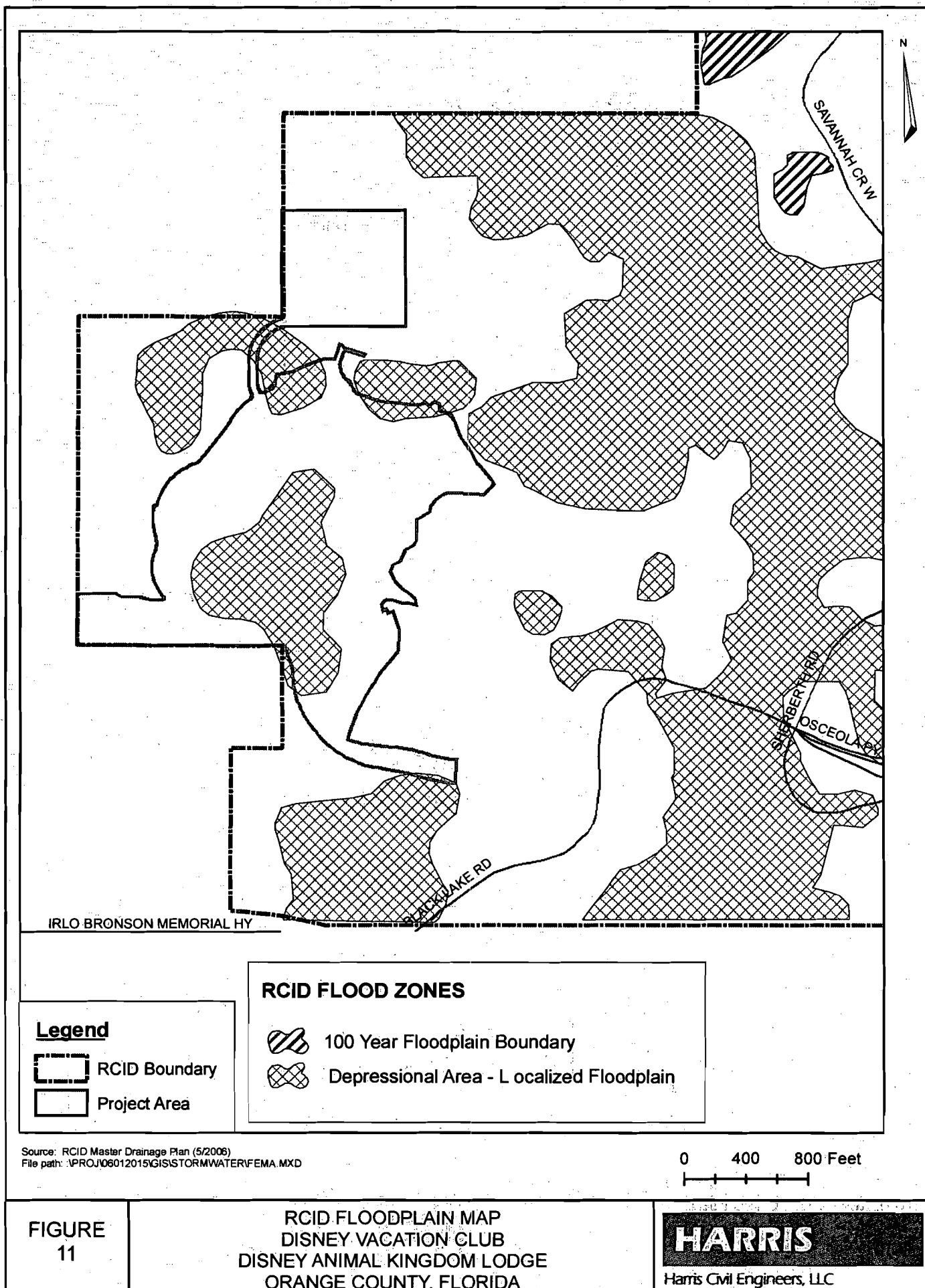
0 200 400 Feet

FIGURE  
10

PRE CONSTRUCTION DRAINAGE BASIN MAP  
DISNEY VACATION CLUB  
DISNEY ANIMAL KINGDOM LODGE  
ORANGE COUNTY, FLORIDA

**HARRIS**

Harris Civil Engineers, LLC







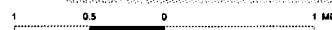
## Walt Disney World

### Legend

#### SFWMD Jurisdictional Wetlands Land Use Description

Bay Swamps	Ditch/Spill	Mixed Wetland Hardwoods	Streams with Grass Beds
Wooded Pits	Freshwater Marsh	Pond Pine	Tidal Swamps
Canals	Lakes 10 - 99 Acres	Reservoirs Less Than 10 Acres	Wet Prairies
Cypress	Lakes 100 - 499 Acres	Shrub Wetland	Wetland Forest Tree Mixed
	Lakes Less Than 10 Acres	Slash Pine	SFWMD Permitted Impacts N US 192

SFWMD Jurisdictional Wetland Map  
Wetland Classification by  
FLORIDA LAND USE, COVER AND FORMS  
CLASSIFICATION SYSTEM



1 inch equals 1,500 feet



# Spreadsheet Calculations

## BASIN 302: Runoff Curve Numbers

**Project:** Disney Animal Kingdom Lodge Annex

**By:** JBC

**Date:** 11/13/06

**Location:** Basin 302

**Checked:** SD

**Date:** 11/13/06

**Circle one:** Present Developed

### Runoff Curve Number (CN)

Soil Name and Hydrologic group	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN			Area acres mi %	Product of CN x area
		Tab. 2-2	Fig. 2-3	Fig. 2-4		
<b>A</b>	Impervious Area	98			3.45	338.5
	Pervious Area	30			4.73	141.8
	Pond	100			1.94	194.3
<b>B/D</b>	Impervious Area	98			0.61	60.1
	Pervious Area	73			0.84	61.2
	Pond	100			0.14	14.4
<b>C</b>	Impervious Area	98			2.57	251.4
	Pervious Area	65			8.11	527.1
	Pond	100			0.08	8.3
<b>D</b>	Impervious Area	98			1.04	101.9
	Pervious Area	73			1.12	81.8
	Pond	100			0.96	96.1
CN (weighted) = total product/total area						
					Totals =	
						25.60
						1876.9

Technical Release 55, Soil Conservation Service, June 1986

Use CN = 73.3

\*Curve Numbers from TR55: Brush Cover Type, Good hydrologic condition

### Time of concentration (Tc) or travel time (Tt)

**Project :** Disney Animal Kingdom Lodge Annex  
**Location :** Basin 302

**By:** JBC  
**Checked:** SD

**Date:** 11/13/06  
**Date:** 11/13/06

**Circle One:** Present ☐ Developed ☒

**Circle One:** ☐ Tc ☒ Tt through subarea

**NOTES:** Space for as many as two segments per flow type can be used for each worksheet.  
 Include map, schematic, or description of flow segments.

**Sheet flow** (Applicable to Tc only)

1. Surface description (Table 3-1)
2. Mannings roughness coeff., *n* (Table 3-1)
3. Flow length, *L* (total *L* < 300 ft.)
4. Two-yr 24-hr rainfall, *P*<sub>2</sub>
5. Calculated Land slope, *s*
- 5a. Land Elevation For Upper End Of Flow Path
- 5b. Land Elevation For Lower End Of Flow Path
6. Compute Tt

**Segment ID**

1
Cultivated Soils
0.24
300 ft
4.80 in
0.007 ft/ft
107.7
105.7
0.73 hr

=  hr

**Shallow concentrated flow**

7. Surface description (Paved or Unpaved)
8. Flow length, *L*
9. Calculated Watercourse slope, *s*
- 9a. Land Elevation For Upper End Of Flow Path
- 9b. Land Elevation For Lower End Of Flow Path
10. Average velocity, *V* (Figure 3-1)
11. Tt = *L*/3600*V* Compute Tt

**Segment ID**

2
Cultivated Soils
269 ft
0.002 ft/ft
105.7
105.2
0.88 ft/s
0.09 hr

=  hr

**Total =**  hr

**Reference:** Urban Hydrology for Small Watersheds  
 Technical Release 55, Soil Conservation Service  
 U.S. Department of Agriculture, June 1986

**Use Time Of Concentration =**  Minutes

### Pond 302: Water Quality Treatment

**Project :** Disney Animal Kingdom Lodge Annex  
RCID, Florida

**P.N. :** 6012015

**By :** Harris Civil Engineers, LLC

**Date :** 13-Nov-06

<b>Drainage Structure/ Basin I.D.</b>	<b>Drainage Area (ac)</b>	<b>Impervious Area<sup>1</sup> (ac)</b>	<b>Pervious Area (ac)</b>	<b>Percent Impervious</b>	<b>One Inch Of Runoff (ac-ft)</b>	<b>2.5 Inches On Impervious Areas (ac-ft)</b>
Site	25.60	4.69	14.80	18.3%	2.13	0.98

(1) Excludes Roof and Pond Area

**Required Water Quality Volume =** 2.13 ac-ft

# **Stormwater Pond Stage/Area/Storage Relationships And Weir Elevation Determination**

**Project** : Disney Animal Kingdom Lodge Annex

RCID, Florida

**P.N.** : 6012015

**By** : Harris Civil Engineers, LLC

**Date** : 13-Nov-06

<b>Pond 302</b>						
<b>Stage</b> <b>(feet)</b>	<b>Depth</b> <b>(feet)</b>	<b>Surface Area</b> <b>(square feet)</b>	<b>Surface Area</b> <b>(acres)</b>	<b>Average Area</b> <b>(acres)</b>	<b>Incremental Volume</b> <b>(ac-Ft)</b>	<b>Total Volume</b> <b>(ac-Ft)</b>
100.50	0.00	122749.37	2.82	0.00	0.00	0.00
101.00	0.50	126270.75	2.90	2.86	1.43	1.43
102.00	1.50	133388.92	3.06	2.98	2.98	4.41

*Required Water Quality Volume =*

2.13 ac-ft

**Weir Elevation =**

**101.23 ft**

## BASIN 303: Runoff Curve Numbers

**Project:** Disney Animal Kingdom Lodge Annex      **By:** JBC      **Date:** 11/13/06  
**Location:** Basin 303      **Checked:** SD      **Date:** 11/13/06  
**Circle one:**    Present      Developed

### Runoff Curve Number (CN)

Soil Name and Hydrologic group	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN			Area acres mi %	Product of CN x area
		Tab. 2-2	Fig. 2-3	Fig. 2-4		
B/D	Impervious Area	98			0.42	41.0
	Pervious Area	73			0.73	53.5
C	Impervious Area	98			2.40	234.9
	Pervious Area	65			6.79	441.2
	Pond	100			0.45	45.0
D	Impervious Area	98			0.06	6.2
	Pervious Area	73			1.69	123.6
	Pond	100			1.77	177.4
A	Impervious Area	98			0.56	54.8
	Pervious Area	30			7.22	216.7
CN (weighted) = total product/total area						
Totals =					22.10	1394.3

Technical Release 55, Soil Conservation  
Service, June 1986

Use CN = 63.1

\*Curve Numbers from TR55: Brush Cover Type, Good hydrologic condition

### Time of concentration (Tc) or travel time (Tt)

**Project :** Disney Animal Kingdom Lodge Annex  
**Location :** Basin 303

**By:** JBC  
**Checked:** SD

**Date:** 11/13/06  
**Date:** 11/13/06

**Circle One:** Present ☐ Developed ☒

**Circle One:** ☒ Tc ☐ Tt through subarea

**NOTES:** Space for as many as two segments per flow type can be used for each worksheet.  
 Include map, schematic, or description of flow segments.

**Sheet flow** (Applicable to Tc only)

1. Surface description (Table 3-1)
2. Mannings roughness coeff., n (Table 3-1)
3. Flow length, L (total L < 300 ft.)
4. Two-yr 24-hr rainfall, P2
5. Calculated Land slope, s
- 5a. Land Elevation For Upper End Of Flow Path
- 5b. Land Elevation For Lower End Of Flow Path
6. Compute Tt

Segment ID	1
	Cultivated Soils
	0.17
	300 ft
	4.80 in
	0.004 ft/ft
	106.8
	105.5
	0.65 hr

=  hr

**Shallow concentrated flow**

7. Surface description (Paved or Unpaved)
8. Flow length, L
9. Calculated Watercourse slope, s
- 9a. Land Elevation For Upper End Of Flow Path
- 9b. Land Elevation For Lower End Of Flow Path
10. Average velocity, V (Figure 3-1)
11. Tt = L/3600V Compute Tt

Segment ID	2
	Cultivated Soils
	170 ft
	0.001 ft/ft
	106.0
	105.9
	0.49 ft/s
	0.10 hr

=  hr

**Total =**  hr

**Reference:** Urban Hydrology for Small Watersheds  
 Technical Release 55, Soil Conservation Service  
 U.S. Department of Agriculture, June 1986

**Use Time Of Concentration =**  Minutes



## Pond 303: Water Quality Treatment

**Project** : Disney Animal Kingdom Lodge Annex

RCID, Florida

**P.N.** : 6012015

**By** : Harris Civil Engineers, LLC

**Date** : 13-Nov-06

<i>Drainage Structure/ Basin I.D.</i>	<i>Drainage Area (ac)</i>	<i>Impervious Area<sup>1</sup> (ac)</i>	<i>Pervious Area (ac)</i>	<i>Percent Impervious</i>	<i>One Inch Of Runoff (ac-ft)</i>	<i>2.5 Inches On Impervious Areas (ac-ft)</i>
Site	22.10	3.44	16.44	15.6%	1.84	0.72

(1) Excludes Roof and Ponds

**Required Water Quality Volume =** 1.84 ac-ft

# **Stormwater Pond Stage/Area/Storage Relationships And Weir Elevation Determination**

**Project** : Disney Animal Kingdom Lodge Annex  
RCID, Florida

**P.N.** : 6012015

**By** : Harris Civil Engineers, LLC

**Date** : 13-Nov-06

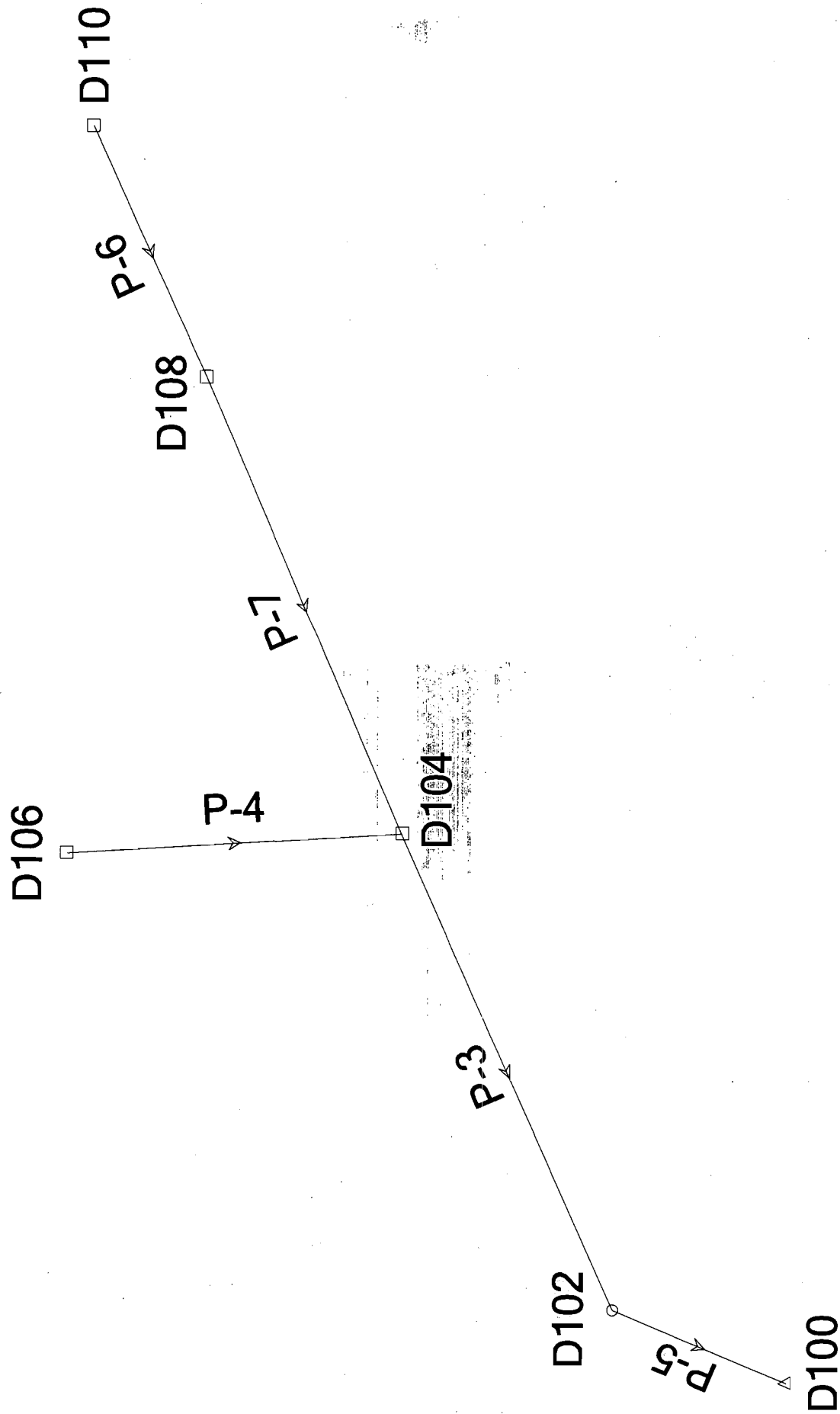
<b>Pond 303</b>						
<b>Stage</b> <b>(feet)</b>	<b>Depth</b> <b>(feet)</b>	<b>Surface</b> <b>Area</b> <b>(square feet)</b>	<b>Surface</b> <b>Area</b> <b>(acres)</b>	<b>Average</b> <b>Area</b> <b>(acres)</b>	<b>Incremental</b> <b>Volume</b> <b>(ac-Ft)</b>	<b>Total</b> <b>Volume</b> <b>(ac-Ft)</b>
100.50	0.00	102554	2.35	0.00	0.00	0.00
101.00	0.50	106335	2.44	2.40	1.20	1.20
102.00	1.50	113975	2.62	2.53	2.53	3.73

Required Water Quality Volume = 1.84 ac-ft

Weir Elevation = 101.25 ft

# Storm CAD Modeling

Scenario: Northern A

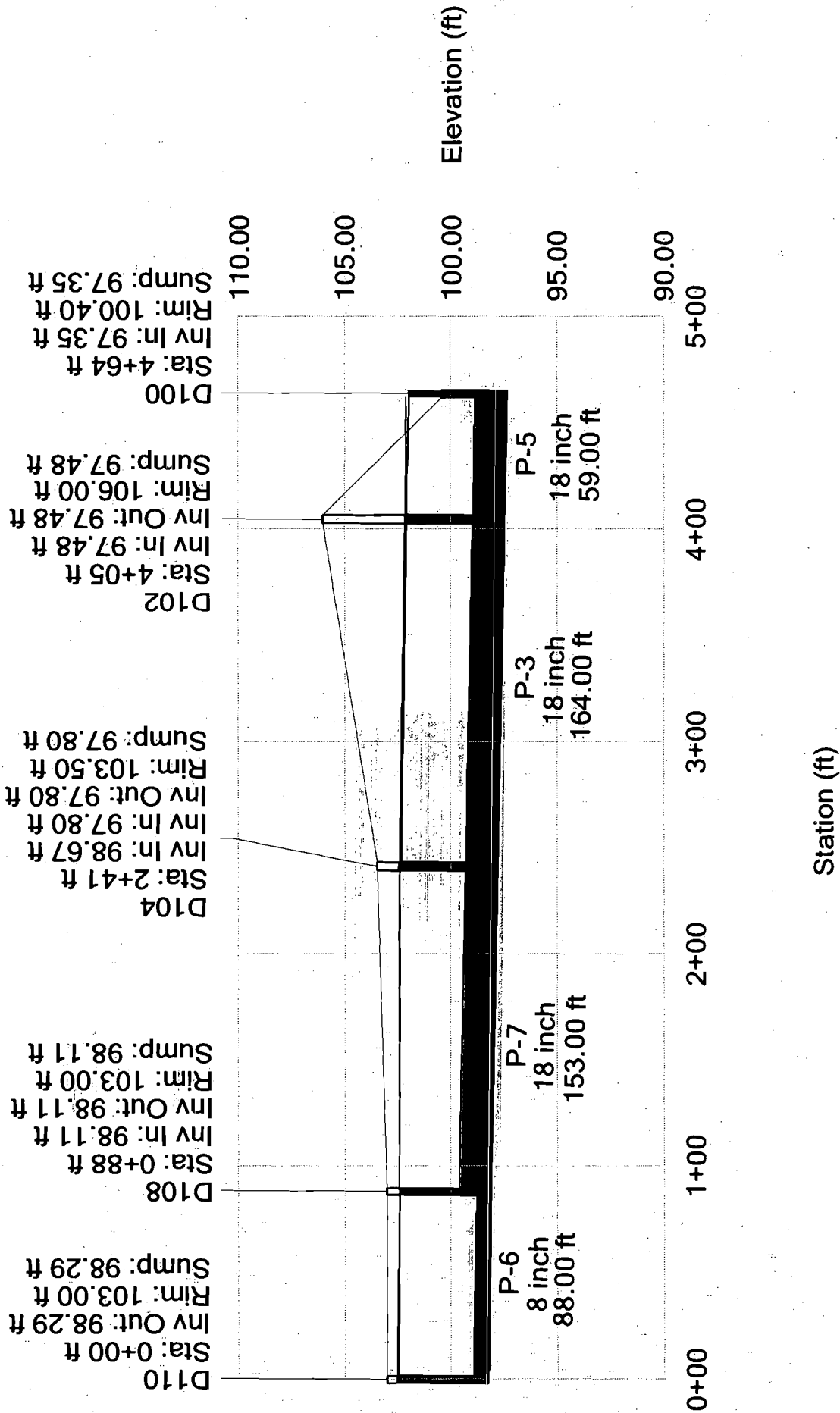


# Scenar

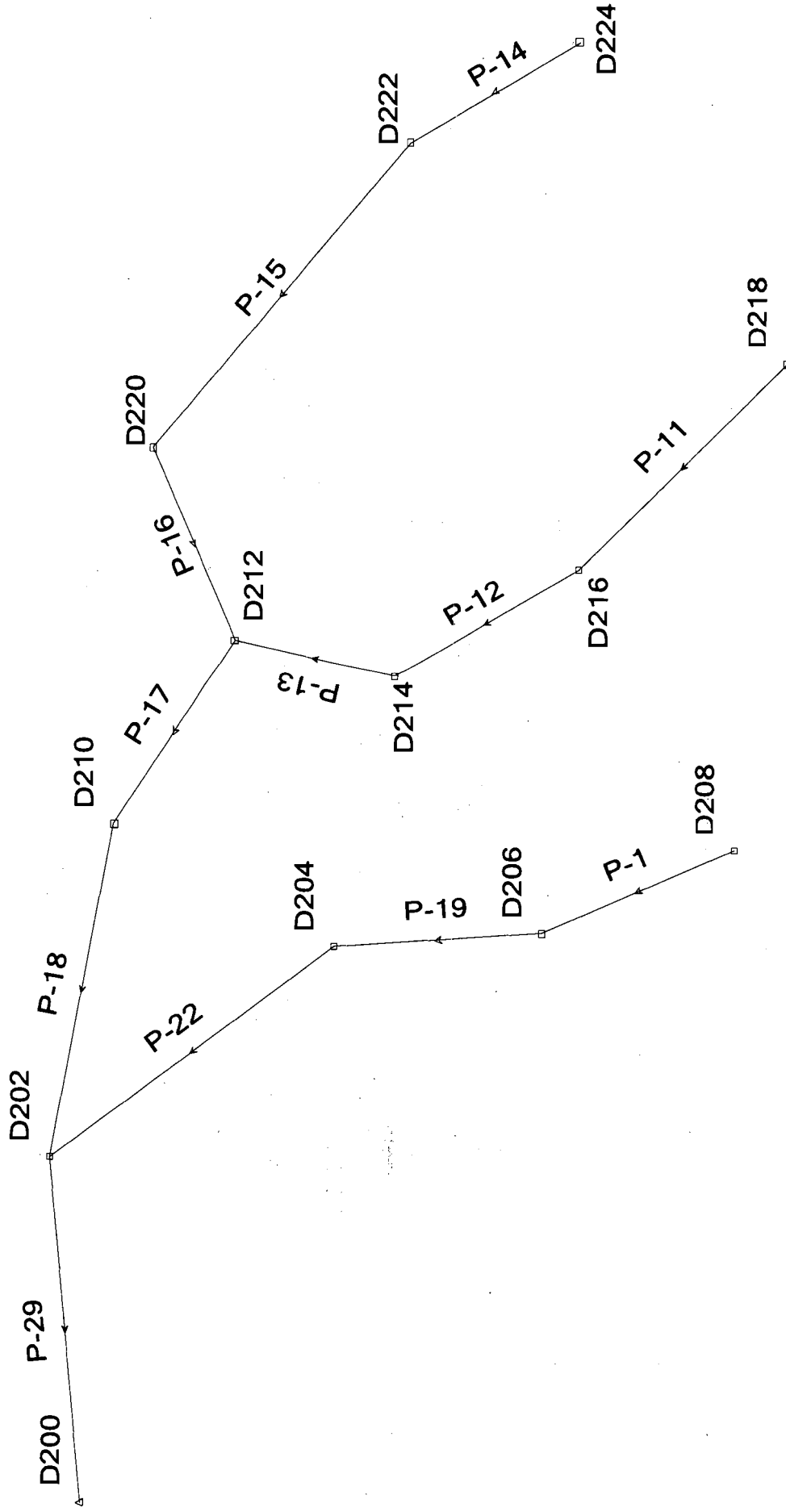
## Pipe Report

Label	Up. Node	Dn. Node	Up. Inlet Area (acres)	Size	Up. Inlet Rat. Coef.	Up. Inlet Area (acres)	Up. Calc. Sys. CA (acres)	I (in/hr)	System Q (cfs)	L (ft)	S (ft/ft)	Mannings n	Q Full (cfs)	Up. Invert (ft)	Dn. Invert (ft)	Up. Gr. Elev. (ft)	Dn. Gr. Elev. (ft)	Up. Cover (ft)	Dn. Cover (ft)	HGL In (ft)	HGL Out (ft)
P-4	D106	D104	0.26	18 inch	0.88	0.23	0.23	5.70	1.31	104.00	0.002115	0.013	4.83	98.89	98.67	103.60	103.50	3.21	3.33	102.44	102.43
P-3	D104	D102	0.94	18 inch	0.43	0.40	0.81	5.18	4.22	164.00	0.001951	0.013	4.64	97.80	97.48	103.50	106.00	4.20	7.02	102.36	102.09
P-5	D102	D100	N/A	18 inch	N/A	N/A	0.81	5.07	4.13	59.00	0.002203	0.013	4.93	97.48	97.35	106.00	100.40	7.02	1.55	102.09	102.00
P-6	D110	D108	0.23	8 inch	0.28	0.06	0.06	5.70	0.36	88.00	0.002045	0.013	0.55	98.29	98.11	103.00	103.00	4.04	4.22	102.52	102.44
P-7	D108	D104	0.43	18 inch	0.28	0.12	0.18	5.57	1.02	153.00	0.002026	0.013	4.73	98.11	97.80	103.00	103.50	3.39	4.20	102.44	102.43

Profile  
Scenario: Northern A



Scenario: Northern B



# Scenario: Northern B

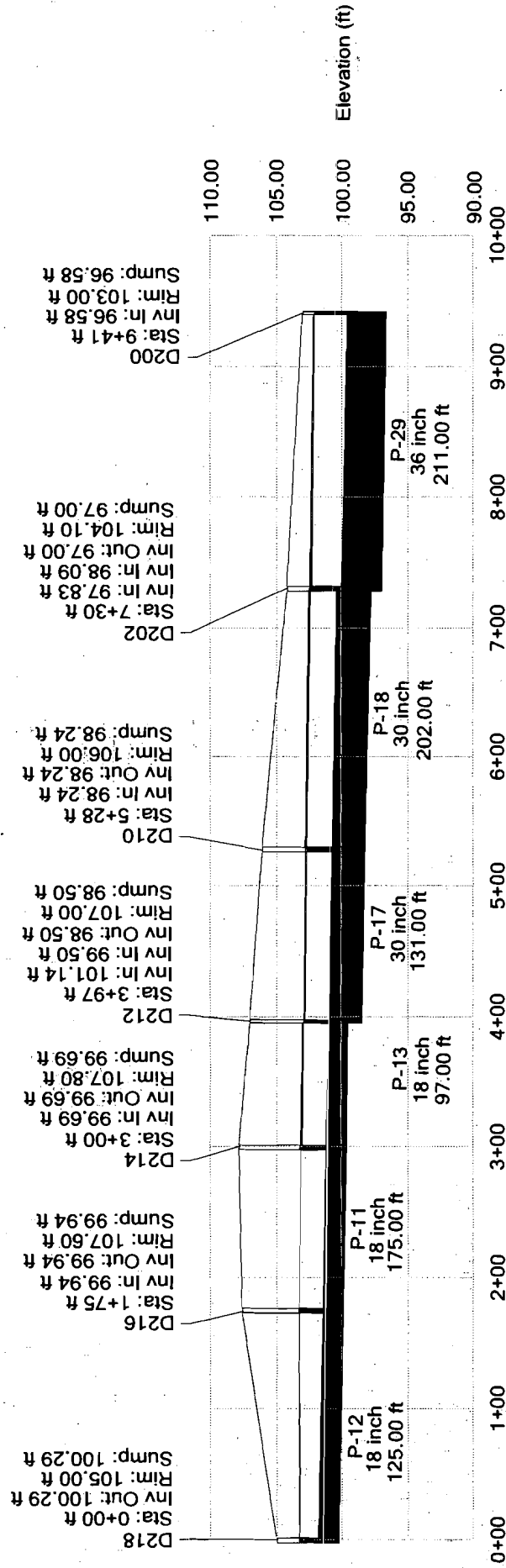
## Pipe Report

Label	Up. Node	Dn. Node	Up. Inlet Area (acres)	Size	Up. Inlet Rat. Coef.	Up. Inlet Area (acres)	Up. Calc. Sys. CA (acres)	I (in/hr)	System Q (cfs)	L (ft)	S (ft/ft)	Mannings n	Q Full (cfs)	Up. Invert (ft)	Dn. Invert (ft)	Up. Gr Elev. (ft)	Dn. Gr. Elev. (ft)	Up. Cover (ft)	Dn. Cover (ft)	HGL In (ft)	HGL Out (ft)
P-11	D218	D216	0.91	18 inch	0.32	0.29	0.29	5.70	1.65	175.00	0.002000	0.013	4.70	100.29	99.94	105.00	107.60	3.21	6.16	103.23	103.19
P-12	D216	D214	0.91	18 inch	0.32	0.29	0.57	5.42	3.14	125.00	0.002000	0.013	4.70	99.94	99.69	107.60	107.80	6.16	6.61	103.16	103.05
P-13	D214	D212	0.91	18 inch	0.32	0.29	0.86	5.31	4.61	97.00	0.001959	0.013	4.65	99.69	99.50	107.80	107.00	6.61	6.00	102.99	102.80
P-14	D224	D222	0.91	18 inch	0.36	0.33	0.33	5.70	1.87	116.00	0.001983	0.013	4.68	102.09	101.86	106.80	107.40	3.21	4.04	103.47	103.44
P-15	D222	D220	0.91	18 inch	0.32	0.29	0.61	5.63	3.48	236.00	0.001992	0.013	4.69	101.86	101.39	107.40	105.20	4.04	2.31	103.41	103.15
P-16	D220	D212	0.91	18 inch	0.32	0.29	0.90	5.45	4.94	125.00	0.002000	0.013	4.70	101.39	101.14	105.20	107.00	2.31	4.36	103.08	102.80
P-17	D212	D210	1.25	30 inch	0.31	0.39	2.15	5.26	11.41	131.00	0.001985	0.013	18.27	98.50	98.24	107.00	106.00	6.00	5.26	102.73	102.63
P-18	D210	D202	2.36	30 inch	0.24	0.56	2.71	4.80	13.13	202.00	0.002030	0.013	18.48	98.24	97.83	106.00	104.10	5.26	3.77	102.56	102.36
P-22	D204	D202	0.60	24 inch	0.87	0.53	1.76	6.34	11.27	319.00	0.001975	0.013	10.05	98.72	98.09	104.50	104.10	3.78	4.01	103.15	102.36
P-29	D202	D200	0.76	36 inch	0.24	0.18	4.66	4.73	22.23	211.00	0.001991	0.013	29.76	97.00	96.58	104.10	103.00	4.10	3.42	102.23	102.00
P-19	D206	D204	0.66	18 inch	0.88	0.58	1.24	6.40	7.99	122.00	0.006557	0.013	8.51	99.52	98.72	104.50	104.50	3.48	4.28	103.98	103.27
P-1	D208	D206	0.74	18 inch	0.88	0.65	0.65	7.40	4.88	128.00	0.002109	0.013	4.82	99.79	99.52	104.50	104.50	3.21	3.48	104.44	104.17



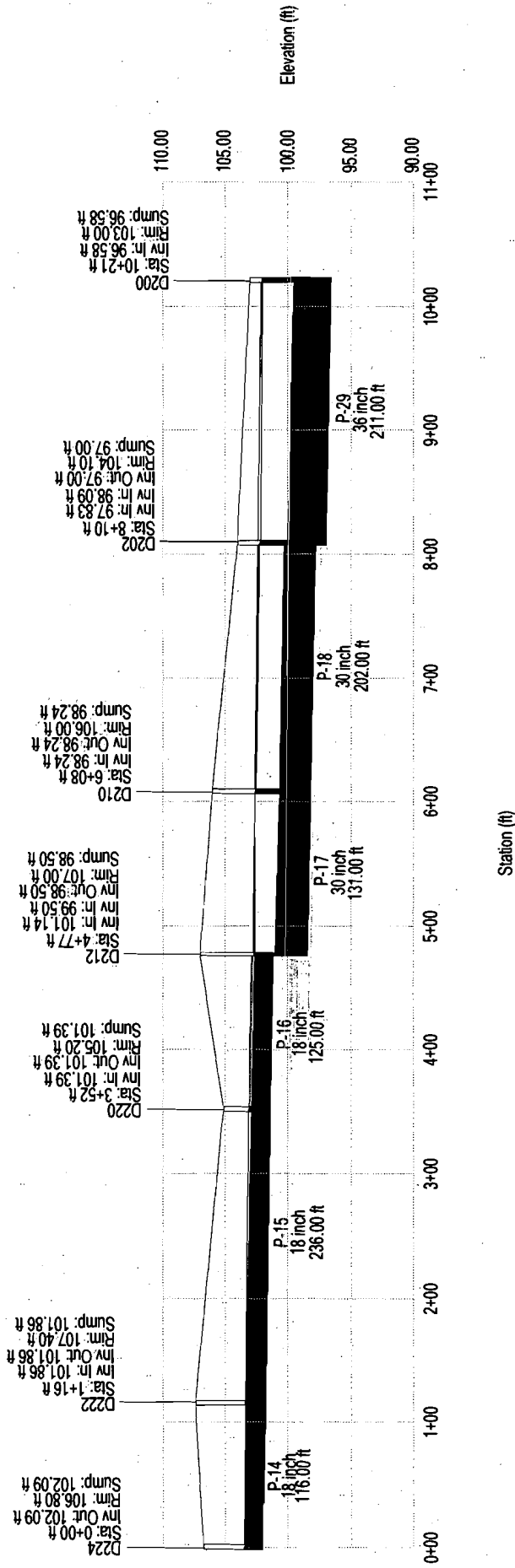
# Profile Scenario: Northern B

Run 1

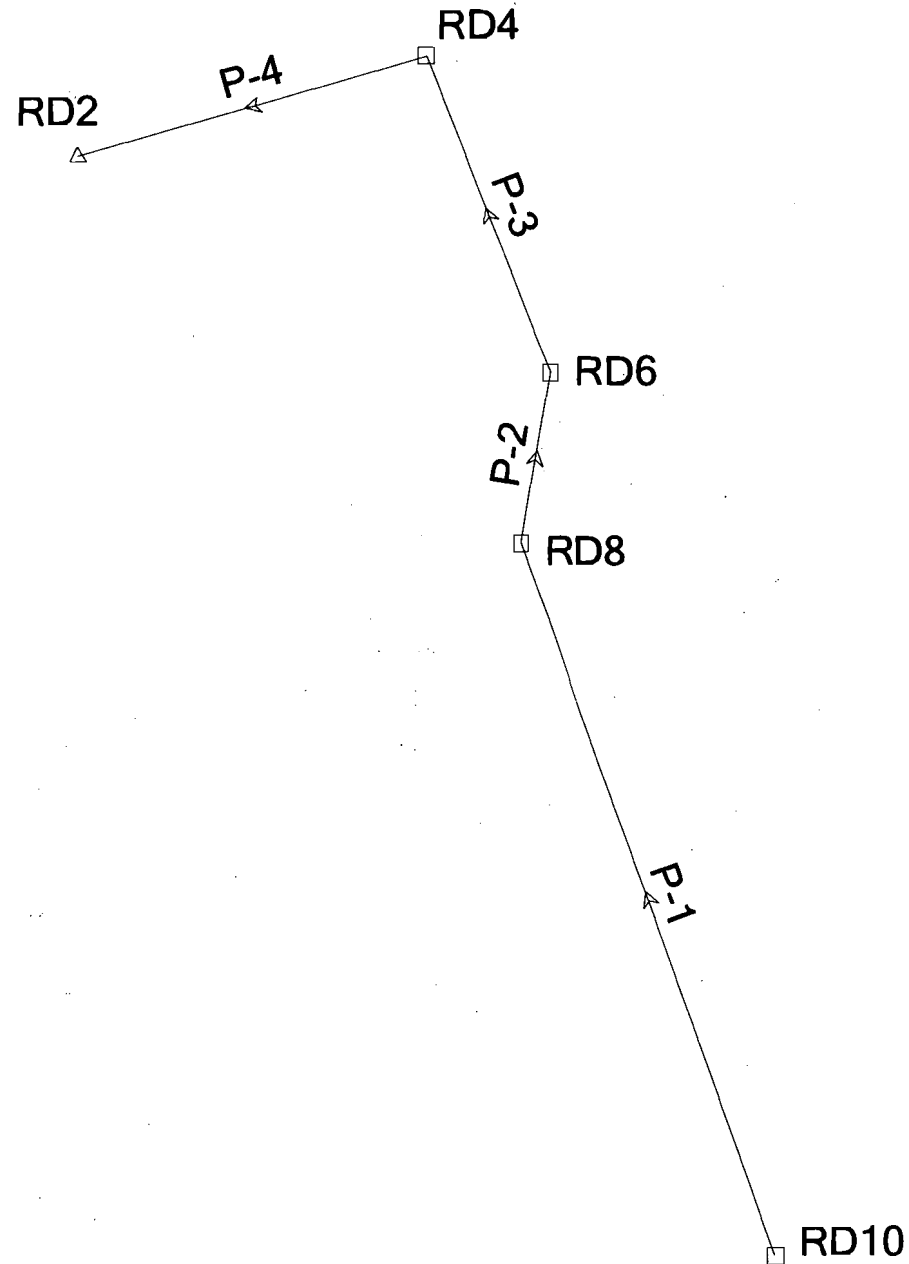


# Profile Scenario: Northern B

Run 2



# Scenario: Northern Roofs

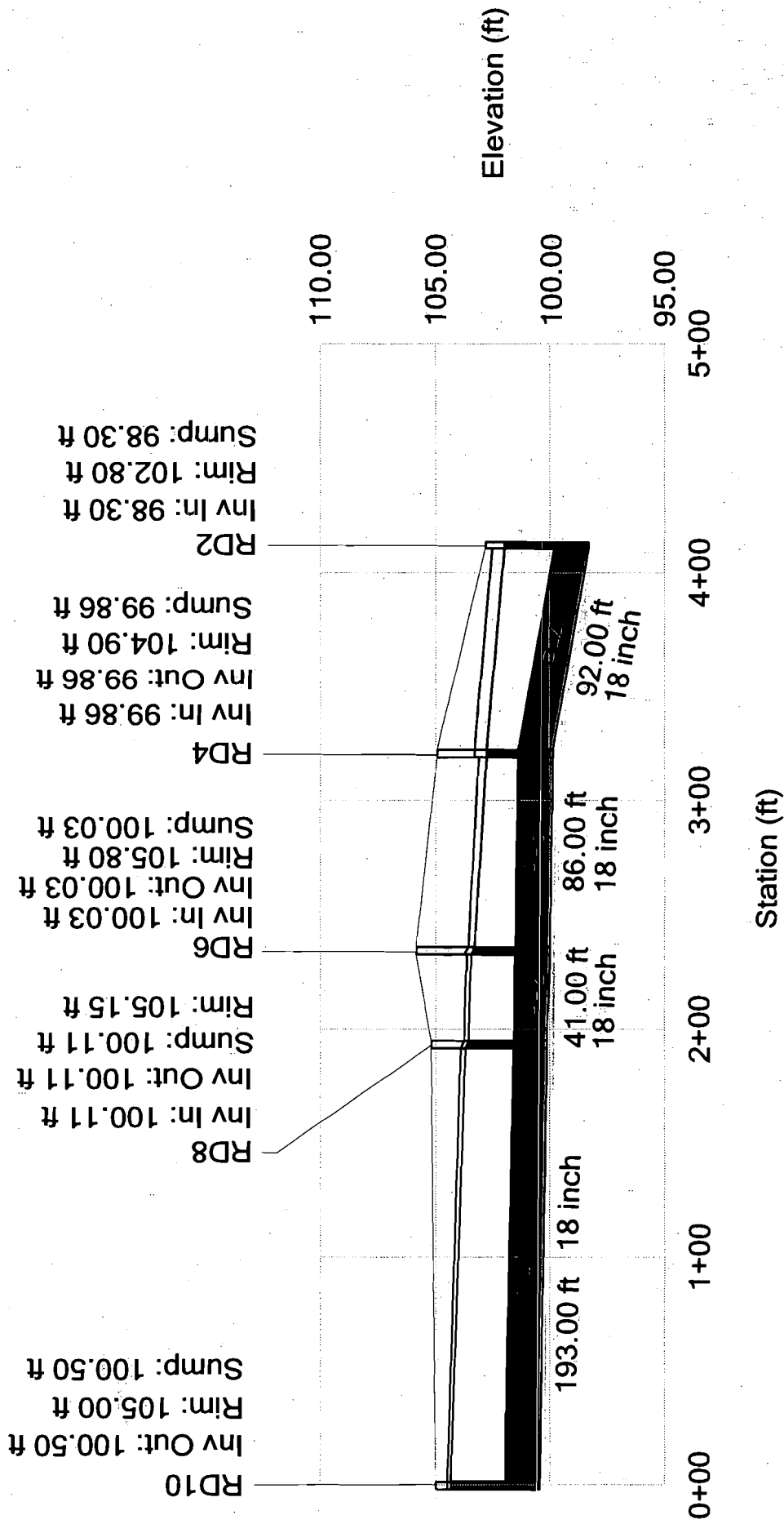


# Scenario: Northern Roofs

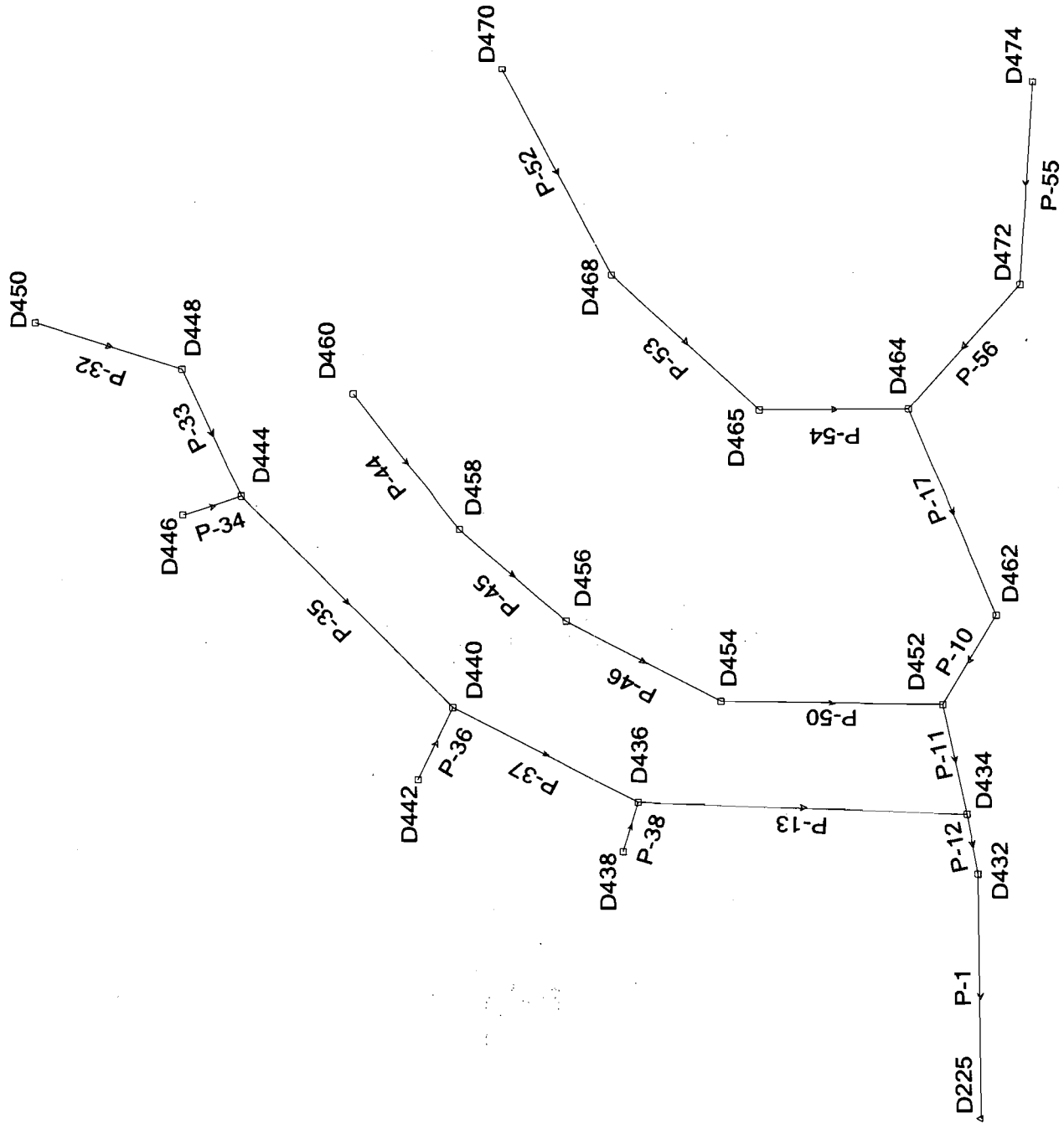
## Pipe Report

Label	Up. Node	Dn. Node	Up. Inlet Area (acres)	Size	Up. Inlet Rat. Coef.	Up. Inlet Area (acres)	Up. Calc. Sys. CA (acres)	I (in/hr)	System Q (cfs)	L (ft)	S (ft/ft)	Mannings n	Q Full (cfs)	Up. Invert (ft)	Dn. Invert (ft)	Up. Gr Elev. (ft)	Dn. Gr. Elev. (ft)	Up. Cover (ft)	Dn. Cover (ft)	HGL In (ft)	HGL Out (ft)
P-1	RD10	RD8	1.03	18 inch	0.90	0.93	0.93	6.40	5.98	193.00	0.002021	0.013	4.72	100.50	100.11	105.00	105.15	3.00	3.54	104.29	103.67
P-2	RD8	RD6	0.00	18 inch	0.00	0.00	0.93	6.27	5.86	41.00	0.001951	0.013	4.64	100.11	100.03	105.15	105.80	3.54	4.27	103.56	103.44
P-3	RD6	RD4	0.35	18 inch	0.90	0.32	1.24	6.24	7.81	86.00	0.001977	0.013	4.67	100.03	99.86	105.80	104.90	4.27	3.54	103.25	102.78
P-4	RD4	RD2	0.34	18 inch	0.90	0.31	1.55	6.19	9.66	92.00	0.016957	0.013	13.68	99.86	98.30	104.90	102.80	3.54	3.00	102.78	102.00

**Profile**  
**Scenario: Northern Roofs**



## Scenario: Southern A

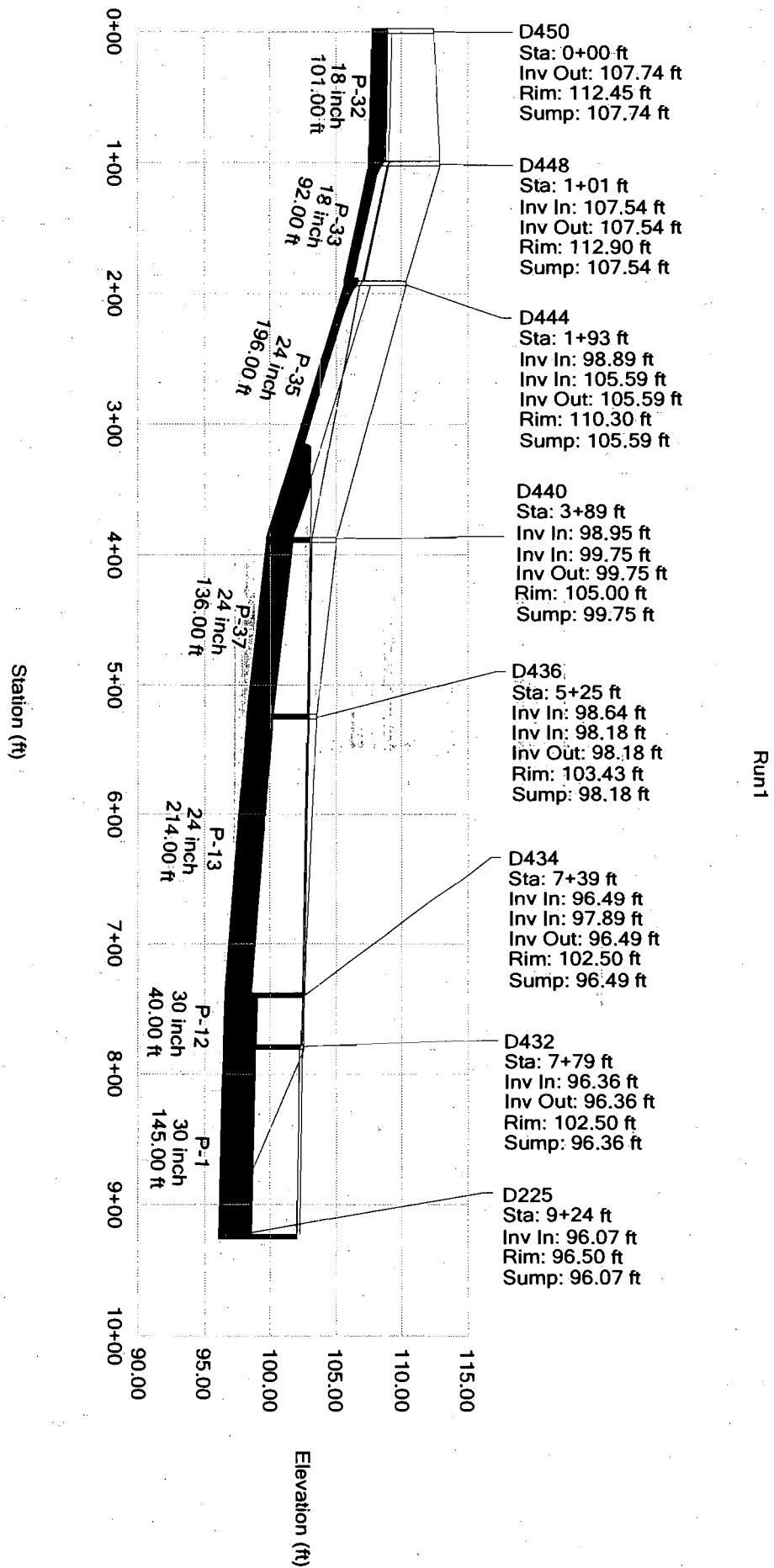


# Scenario: Southern A

## Pipe Report

Label	Up. Node	Dn. Node	Up. Inlet Area (acres)	Size	Up. Inlet Rat. Coef.	Up. Inlet Area (acres)	Up. Calc. Sys. CA (acres)	I (in/hr)	System Q (cfs)	L (ft)	S (ft/ft)	Mannings n	Q Full (cfs)	Up. Invert (ft)	Dn. Invert (ft)	Up. Gr Elev. (ft)	Dn. Gr. Elev. (ft)	Up. Cover (ft)	Dn. Cover (ft)	HGL In (ft)	HGL Out (ft)
P-44	D460	D458	0.08	18 inch	0.95	0.08	0.08	6.40	0.49	113.00	0.002035	0.013	4.74	99.79	99.56	104.70	104.50	3.41	3.44	102.94	102.93
P-45	D458	D456	0.11	18 inch	0.95	0.10	0.18	5.54	1.01	92.00	0.001848	0.013	4.52	99.56	99.39	104.50	104.41	3.44	3.52	102.93	102.92
P-46	D456	D454	0.13	18 inch	0.95	0.12	0.30	5.30	1.62	114.00	0.002018	0.013	4.72	99.39	99.16	104.41	104.10	3.52	3.44	102.91	102.89
P-50	D454	D452	0.34	18 inch	0.80	0.27	0.58	5.11	2.97	145.00	0.002000	0.013	4.70	99.16	98.87	104.10	103.70	3.44	3.33	102.86	102.75
P-52	D470	D468	1.07	18 inch	0.31	0.33	0.33	3.77	1.27	153.00	0.002026	0.013	4.73	99.89	99.58	104.60	104.60	3.21	3.52	104.62	104.60
P-53	D468	D465	1.07	18 inch	0.31	0.33	0.67	3.58	2.41	131.00	0.002061	0.013	4.77	99.58	99.31	104.60	104.60	3.52	3.79	104.67	104.60
P-54	D465	D464	1.07	18 inch	0.31	0.33	1.00	3.50	3.54	98.00	0.001939	0.013	4.62	99.31	99.12	104.60	104.60	3.79	3.98	104.59	104.48
P-55	D474	D472	1.07	18 inch	0.31	0.33	0.33	3.77	1.27	133.00	0.002030	0.013	4.73	99.89	99.62	104.60	104.60	3.21	3.48	104.57	104.55
P-56	D472	D464	1.07	18 inch	0.31	0.33	0.67	3.61	2.43	110.00	0.002000	0.013	4.70	99.62	99.40	104.60	104.60	3.48	3.70	104.53	104.48
P-17	D464	D462	2.00	18 inch	0.31	0.63	2.29	3.46	8.00	149.00	0.005570	0.013	7.84	99.12	98.29	104.60	105.00	3.98	5.21	104.22	103.36
P-10	D462	D452	0.10	18 inch	0.70	0.07	2.36	3.43	8.17	68.00	0.003676	0.013	6.37	98.29	98.04	105.00	103.70	5.21	4.16	103.16	102.75
P-11	D452	D434	0.20	24 inch	0.80	0.16	3.10	3.42	10.68	74.00	0.002027	0.013	0.18	98.04	97.89	103.70	102.50	3.66	2.61	102.64	102.47
P-12	D434	D432	0.49	30 inch	0.48	0.23	4.64	3.40	15.89	40.00	0.003250	0.013	3.38	96.49	96.36	102.50	102.50	3.51	3.64	102.37	102.31
P-32	D450	D448	0.66	18 inch	0.76	0.50	0.50	7.40	3.75	101.00	0.001980	0.013	4.67	07.74	107.54	112.45	112.90	3.21	3.86	108.84	108.70
P-33	D448	D444	0.35	18 inch	0.80	0.28	0.78	7.29	5.75	92.00	0.021196	0.013	5.29	07.54	105.59	112.90	110.30	3.86	3.21	108.47	106.69
P-34	D446	D444	0.06	18 inch	0.88	0.05	0.05	7.40	0.39	40.00	0.010000	0.013	0.50	99.29	98.89	110.30	110.30	9.51	9.91	106.69	106.69
P-35	D444	D440	0.14	24 inch	0.73	0.10	0.94	6.80	6.42	196.00	0.029796	0.013	9.05	05.59	99.75	110.30	105.00	2.71	3.25	106.49	103.04
P-36	D442	D440	0.12	18 inch	0.43	0.05	0.05	7.40	0.38	52.00	0.006538	0.013	8.49	99.29	98.95	105.00	105.00	4.21	4.55	103.04	103.04
P-37	D440	D436	0.40	24 inch	0.35	0.14	1.13	6.59	7.50	136.00	0.011544	0.013	4.30	99.75	98.18	105.00	103.43	3.25	3.25	102.98	102.83
P-38	D438	D436	0.12	18 inch	0.43	0.05	0.05	7.40	0.38	34.00	0.019118	0.013	4.52	99.29	98.64	103.45	103.43	2.66	3.29	102.83	102.83
P-13	D436	D434	0.35	24 inch	0.35	0.12	1.30	6.40	8.40	214.00	0.007897	0.013	0.10	98.18	96.49	103.43	102.50	3.25	4.01	102.77	102.47
P-1	D432	D225	0.17	30 inch	0.80	0.14	4.77	3.39	16.30	145.00	0.002000	0.013	8.34	96.36	96.07	102.50	96.50	3.64	-2.07	102.23	102.00

# Profile Scenario: Southern A



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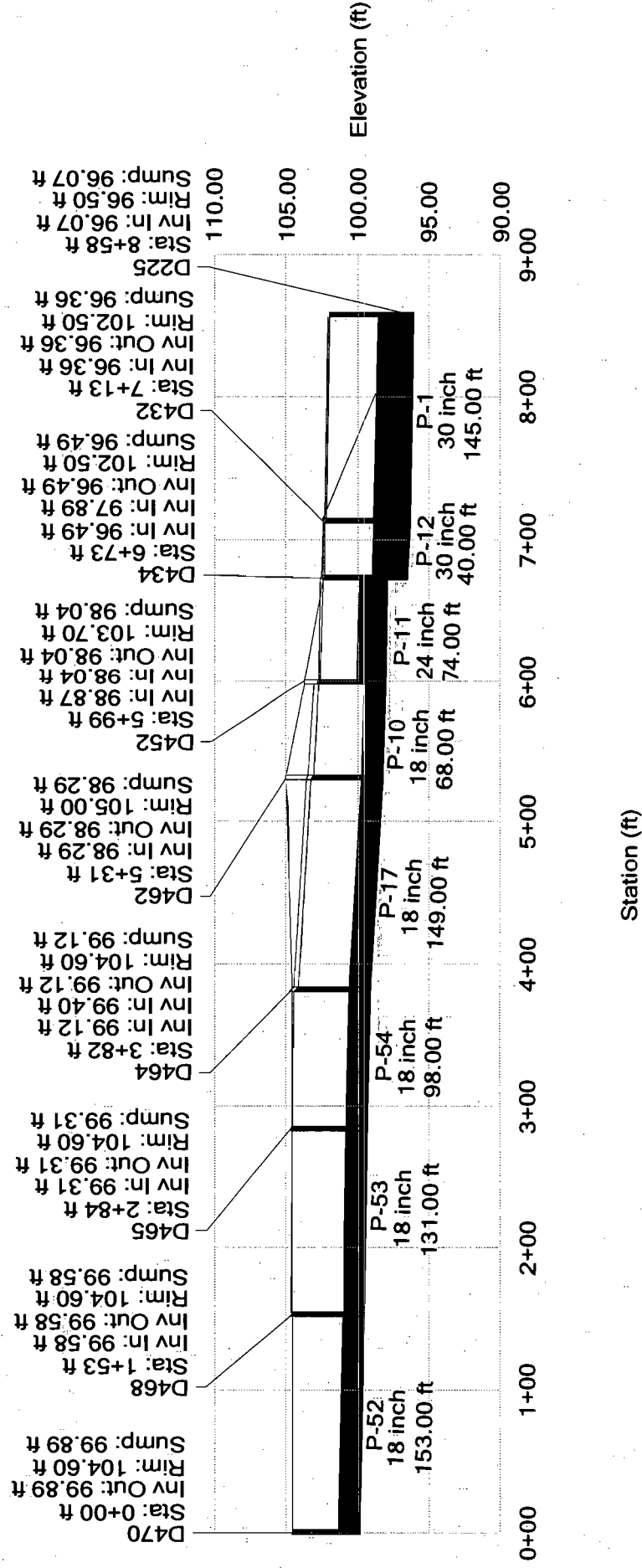
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StormCAD v5.6 [05.06.012.00]  
Page 1 of 1

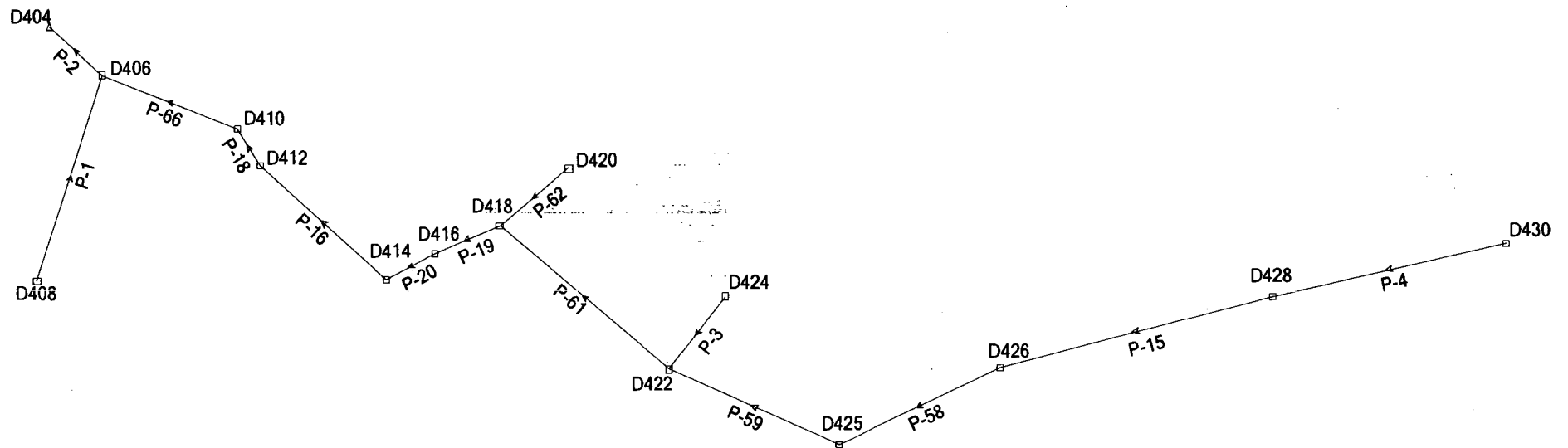


# Profile Scenario: Southern A

Run 2



## Scenario: Southern B



# Scenario: Southern B

## Pipe Report

Label	Up. Node	Dn. Node	Up. Inlet Area (acres)	Size	Up. Inlet Rat. Coef.	Up. Inlet Area (acres)	Up. Calc. Sys. CA (acres)	I (in/hr)	System Q (cfs)	L (ft)	S (ft/ft)	Mannings n	Q Full (cfs)	Up. Invert (ft)	Dn. Invert (ft)	Up. Gr Elev. (ft)	Dn. Gr. Elev. (ft)	Up. Cover (ft)	Dn. Cover (ft)	HGL In (ft)	HGL Out (ft)
P-66	D410	D406	0.19	30 inch	0.57	0.11	1.67	5.39	9.10	87.00	0.002069	0.013	18.66	96.75	96.57	102.68	102.50	3.43	3.43	102.20	102.15
P-16	D414	D412	0.31	18 inch	0.57	0.18	1.40	5.44	7.66	93.00	0.013871	0.013	12.37	98.09	96.80	103.78	102.68	4.19	4.38	102.82	102.32
P-18	D412	D410	0.48	24 inch	0.35	0.17	1.57	5.41	8.53	25.00	0.002000	0.013	10.12	96.80	96.75	102.68	102.68	3.88	3.93	102.26	102.23
P-1	D408	D406	1.09	18 inch	0.76	0.83	0.83	6.40	5.37	139.00	0.002014	0.013	4.71	99.00	98.72	103.80	102.50	3.30	2.28	102.52	102.15
P-2	D406	D404	0.09	30 inch	0.95	0.09	2.60	5.32	13.93	47.00	0.002128	0.013	18.92	96.57	96.47	102.50	100.45	3.43	1.48	102.05	102.00
P-58	D426	D425	0.31	18 inch	0.57	0.18	0.31	5.92	1.84	106.00	0.002075	0.013	4.79	99.79	99.57	104.50	104.10	3.21	3.03	103.84	103.81
P-59	D425	D422	0.16	18 inch	0.57	0.09	0.40	5.69	2.30	112.00	0.008393	0.013	9.62	99.57	98.63	104.10	103.80	3.03	3.67	103.80	103.74
P-61	D422	D418	0.30	18 inch	0.57	0.17	0.72	5.56	4.05	142.00	0.002676	0.013	5.43	98.63	98.25	103.80	103.50	3.67	3.75	103.69	103.48
P-62	D420	D418	0.22	18 inch	0.80	0.18	0.18	7.40	1.31	62.00	0.001774	0.013	4.42	98.79	98.68	103.50	103.50	3.21	3.32	103.49	103.48
P-15	D428	D426	0.20	18 inch	0.46	0.09	0.13	6.40	0.84	97.00	0.002165	0.013	4.89	100.00	99.79	104.70	104.50	3.20	3.21	103.86	103.85
P-19	D418	D416	0.24	18 inch	0.80	0.19	1.09	5.47	6.01	49.00	0.002041	0.013	4.75	98.25	98.15	103.50	103.78	3.75	4.13	103.37	103.21
P-20	D416	D414	0.24	18 inch	0.54	0.13	1.22	5.45	6.69	27.00	0.002222	0.013	4.95	98.15	98.09	103.78	103.78	4.13	4.19	103.10	102.99
P-3	D424	D422	0.17	18 inch	0.88	0.15	0.15	6.40	0.96	60.00	0.011000	0.013	11.02	99.29	98.63	104.00	103.80	3.21	3.67	103.75	103.74
P-4	D430	D428	0.19	18 inch	0.20	0.04	0.04	8.90	0.34	83.00	0.001928	0.013	4.61	100.16	100.00	104.50	104.70	2.84	3.20	103.86	103.86

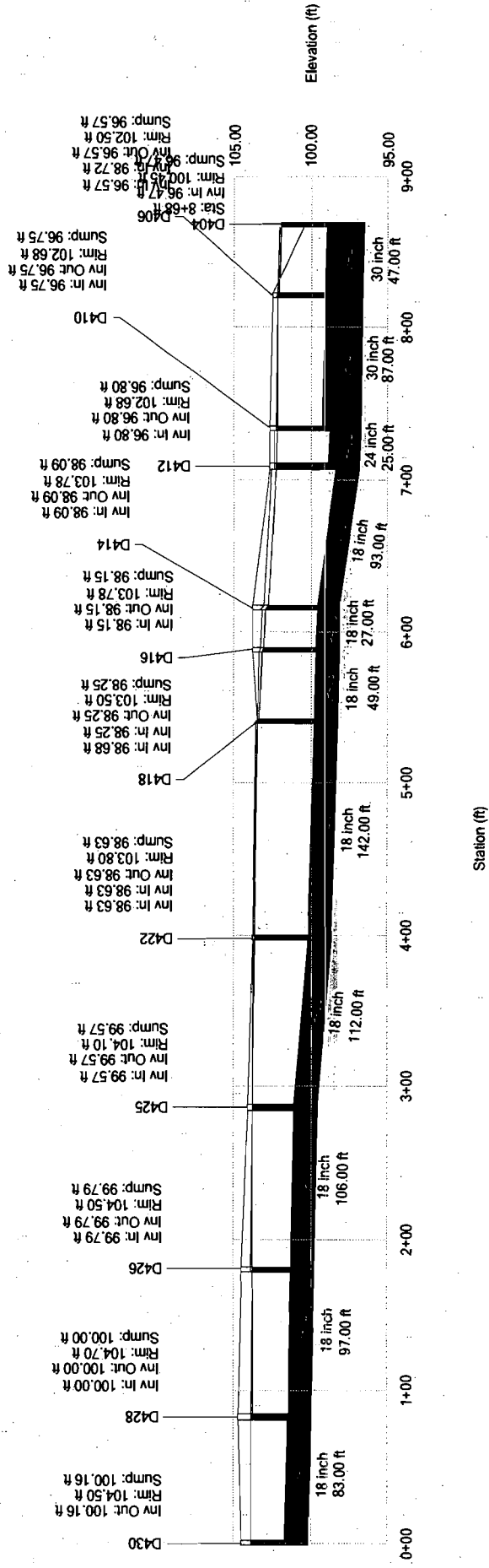
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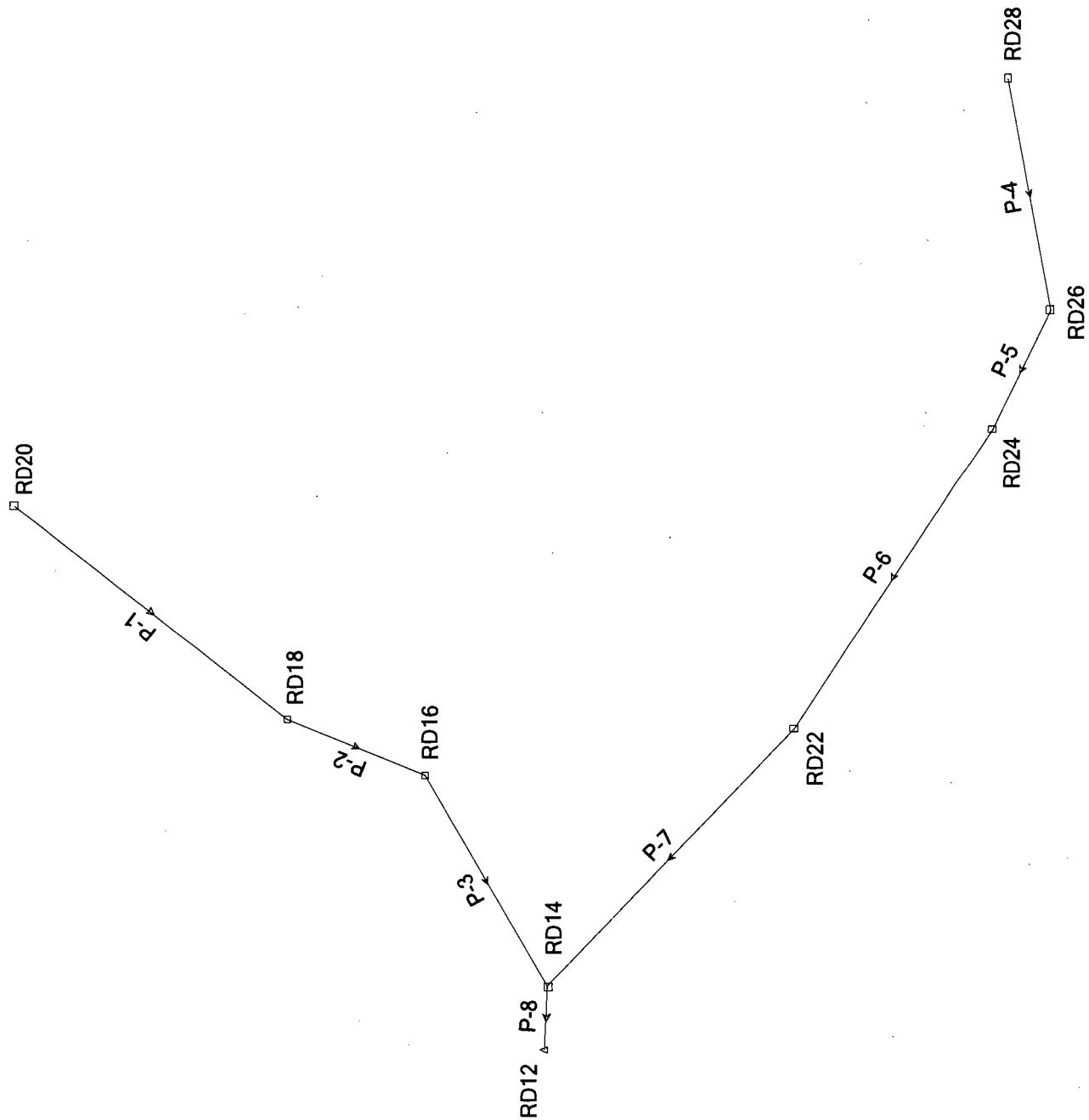
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StormCAD v5.6 [05.06.012.00]  
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# Profile Scenario: Southern B



## Scenario: Southern Roofs



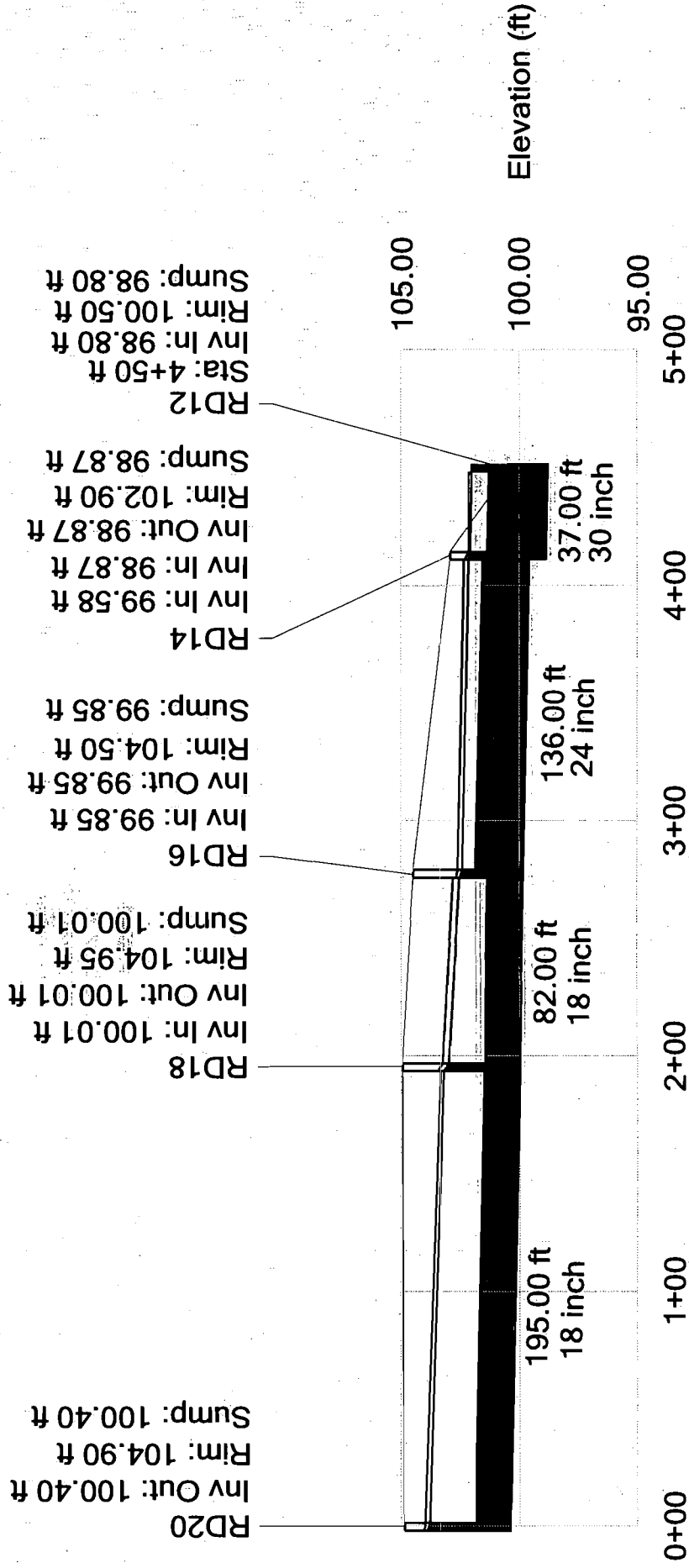
# Scenario: Southern Roofs

## Pipe Report

Label	Up. Node	Dn. Node	Up. Inlet Area (acres)	Size	Up. Inlet Rat. Coef.	Up. Inlet Area (acres)	Up. Calc. Sys. CA (acres)	I (in/hr)	System Q (cfs)	L (ft)	S (ft/ft)	Mannings n	Q Full (cfs)	Up. Invert (ft)	Dn. Invert (ft)	Up. Gr Elev. (ft)	Dn. Gr. Elev. (ft)	Up. Cover (ft)	Dn. Cover (ft)	HGL In (ft)	HGL Out (ft)
P-1	RD20	RD18	1.02	18 inch	0.90	0.92	0.92	6.40	5.92	195.00	0.002000	0.013	4.70	100.40	100.01	104.90	104.95	3.00	3.44	103.78	103.16
P-2	RD18	RD16	0.36	18 inch	0.90	0.32	1.24	6.26	7.84	82.00	0.001951	0.013	4.64	100.01	99.85	104.95	104.50	3.44	3.15	102.97	102.52
P-3	RD16	RD14	0.42	24 inch	0.90	0.38	1.62	6.22	10.16	136.00	0.001985	0.013	10.08	99.85	99.58	104.50	102.90	2.65	1.32	102.42	102.14
P-4	RD28	RD26	0.29	18 inch	0.90	0.26	0.26	6.40	1.68	131.00	0.001985	0.013	4.68	100.10	99.84	105.00	104.70	3.40	3.36	102.54	102.51
P-5	RD26	RD24	0.00	18 inch	0.00	0.00	0.26	6.08	1.60	80.00	0.002000	0.013	4.70	99.84	99.68	104.70	104.60	3.36	3.42	102.50	102.48
P-6	RD24	RD22	0.31	18 inch	0.90	0.28	0.54	5.87	3.20	200.00	0.002000	0.013	4.70	99.68	99.28	104.60	104.25	3.42	3.47	102.46	102.27
P-7	RD22	RD14	0.42	24 inch	0.90	0.38	0.92	5.65	5.22	202.00	0.002030	0.013	10.19	99.28	98.87	104.25	102.90	2.97	2.03	102.25	102.14
P-8	RD14	RD12	0.00	30 inch	0.00	0.00	2.54	5.46	13.98	37.00	0.001892	0.013	17.84	98.87	98.80	102.90	100.50	1.53	-0.80	102.04	102.00

Profile  
Scenario: Southern Roofs

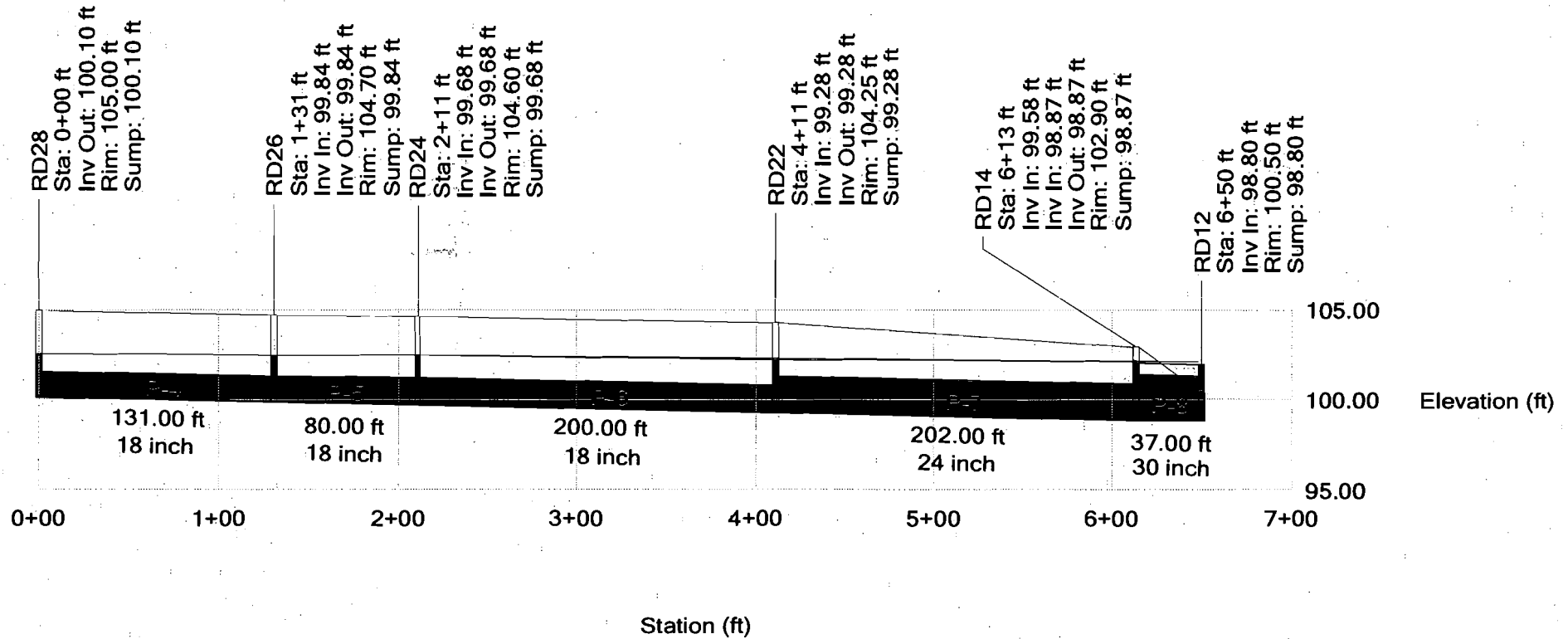
Upper Branch



Station (ft)

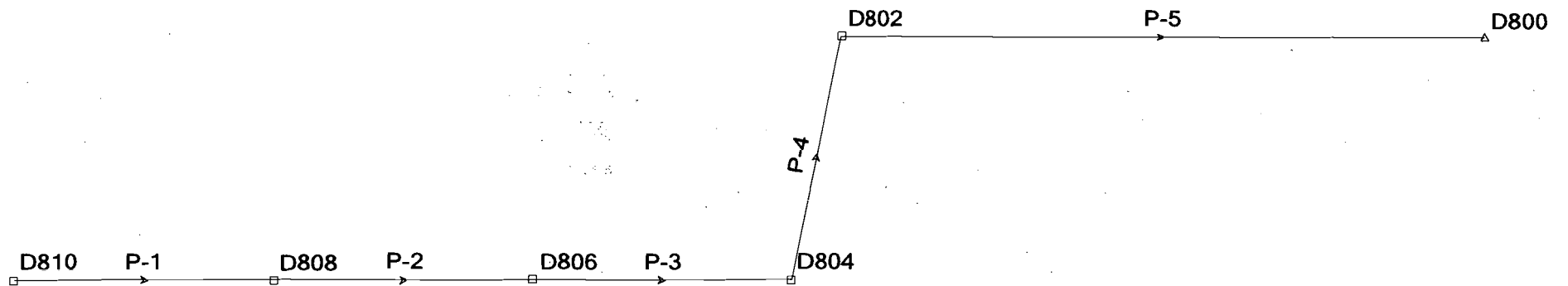
# Profile Scenario: Southern Roofs

Lower Branch





## Scenario: Traylor Compound



# Scenario: Traylor Compound

## Pipe Report

Label	Up. Node	Dn. Node	Up. Inlet Area (acres)	Size	Up. Inlet Rat. Coef.	Up. Inlet Area (acres)	Up. Calc. Sys. CA (acres)	I (in/hr)	System Q (cfs)	L (ft)	S (ft/ft)	Mannings n	Q Full (cfs)	Up. Invert (ft)	Dn. Invert (ft)	Up. Gr Elev. (ft)	Dn. Gr. Elev. (ft)	Up. Cover (ft)	Dn. Cover (ft)	HGL In (ft)	HGL Out (ft)
P-1	D810	D808	0.95	24 inch	0.85	0.80	0.80	6.40	5.19	138.00	0.002029	0.013	10.19	97.75	97.47	103.10	103.00	3.35	3.53	103.07	102.99
P-2	D808	D806	0.72	24 inch	0.84	0.61	1.41	6.21	8.83	137.00	0.001971	0.013	10.04	97.47	97.20	103.00	103.00	3.53	3.80	102.93	102.72
P-3	D806	D804	0.96	30 inch	0.85	0.81	2.23	6.09	13.66	137.00	0.001971	0.013	18.21	96.65	96.38	103.00	103.00	3.85	4.12	102.66	102.51
P-4	D804	D802	1.02	36 inch	0.85	0.86	3.09	5.98	18.61	131.00	0.001985	0.013	29.71	95.84	95.58	103.00	105.68	4.16	7.10	102.45	102.34
P-5	D802	D800	0.15	36 inch	0.86	0.13	3.22	5.86	19.01	341.00	0.001994	0.013	29.78	95.58	94.90	105.68	103.00	7.10	5.10	102.28	102.00

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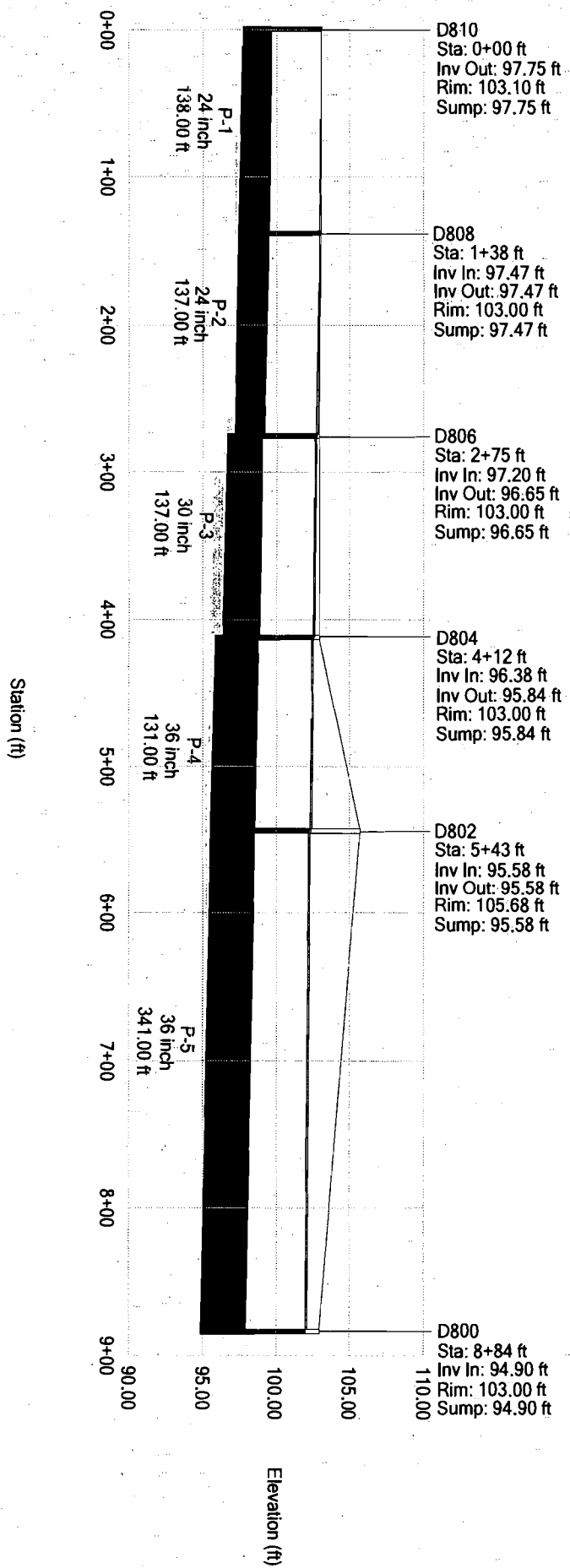
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Project Engineer: JOSHUA B COOK

StormCAD v5.6 [05.06.012.00]

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# Profile Scenario: Trailor Compound



Title: DAKL  
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Project Engineer: JOSHUA B COOK  
StormCAD v5.6 [05.06.012.00]  
Page 1 of 1

# AdICPR Modeling

# Model Input

=====

Basins

=====

Name: 302                      Node: Pond 302                      Status: Onsite  
Group: BASE                      Type: Santa Barbara

Rainfall File: Sfwmd24                      Storm Duration(hrs): 24.00  
Rainfall Amount(in): 7.400                      Time of Conc(min): 49.00  
Area(ac): 25.600                      Time Shift(hrs): 0.00  
Curve Number: 73.30                      Time Increment(min): 5.00  
DCIA(%): 0.00                      Max Allowable Q(cfs): 999999.000

-----

Name: 303                      Node: Pond 303                      Status: Onsite  
Group: BASE                      Type: Santa Barbara

Rainfall File: Sfwmd24                      Storm Duration(hrs): 24.00  
Rainfall Amount(in): 7.400                      Time of Conc(min): 45.00  
Area(ac): 22.100                      Time Shift(hrs): 0.00  
Curve Number: 63.10                      Time Increment(min): 5.00  
DCIA(%): 0.00                      Max Allowable Q(cfs): 999999.000

-----

Name: 309                      Node: 309                      Status: Onsite  
Group: BASE                      Type: Santa Barbara

Rainfall File: Sfwmd24                      Storm Duration(hrs): 24.00  
Rainfall Amount(in): 7.400                      Time of Conc(min): 45.00  
Area(ac): 3.970                      Time Shift(hrs): 0.00  
Curve Number: 56.00                      Time Increment(min): 5.00  
DCIA(%): 0.00                      Max Allowable Q(cfs): 999999.000

-----

Name: AP-88                      Node: BOUNDARY                      Status: Onsite  
Group: BASE                      Type: Santa Barbara

Rainfall File: Sfwmd24                      Storm Duration(hrs): 24.00  
Rainfall Amount(in): 7.400                      Time of Conc(min): 15.00  
Area(ac): 0.390                      Time Shift(hrs): 0.00  
Curve Number: 98.00                      Time Increment(min): 5.00  
DCIA(%): 0.00                      Max Allowable Q(cfs): 999999.000

-----

Name: AP-89                      Node: BOUNDARY                      Status: Onsite  
Group: BASE                      Type: Santa Barbara

Rainfall File: Sfwmd24                      Storm Duration(hrs): 24.00  
Rainfall Amount(in): 7.400                      Time of Conc(min): 15.00  
Area(ac): 0.390                      Time Shift(hrs): 0.00  
Curve Number: 98.00                      Time Increment(min): 5.00  
DCIA(%): 0.00                      Max Allowable Q(cfs): 999999.000

-----

Name: Roofs-North                      Node: BOUNDARY                      Status: Onsite  
Group: BASE                      Type: Santa Barbara

Rainfall File: Sfwmd24                      Storm Duration(hrs): 24.00  
Rainfall Amount(in): 7.400                      Time of Conc(min): 15.00  
Area(ac): 1.370                      Time Shift(hrs): 0.00  
Curve Number: 98.00                      Time Increment(min): 5.00  
DCIA(%): 0.00                      Max Allowable Q(cfs): 999999.000

-----

Name: Roofs-South                      Node: Wetlands                      Status: Onsite  
Group: BASE                      Type: Santa Barbara

Rainfall File: Sfwmd24                      Storm Duration(hrs): 24.00  
Rainfall Amount(in): 7.400                      Time of Conc(min): 15.00  
Area(ac): 4.560                      Time Shift(hrs): 0.00  
Curve Number: 98.00                      Time Increment(min): 5.00  
DCIA(%): 0.00                      Max Allowable Q(cfs): 999999.000

```

-----
Name: Wetland           Node: Wetlands           Status: Onsite
Group: BASE             Type: Santa Barbara

Rainfall File: Sfwmd24      Storm Duration(hrs): 24.00
Rainfall Amount(in): 7.400  Time of Conc(min): 20.00
Area(ac): 13.200           Time Shift(hrs): 0.00
Curve Number: 73.00        Time Increment(min): 5.00
DCIA(%): 0.00             Max Allowable Q(cfs): 999999.000
-----

```

```

-----
Name: Wetland Offsite    Node: Wetlands           Status: Onsite
Group: BASE              Type: Santa Barbara

Rainfall File: Sfwmd24      Storm Duration(hrs): 24.00
Rainfall Amount(in): 7.400  Time of Conc(min): 81.00
Area(ac): 10.940           Time Shift(hrs): 0.00
Curve Number: 64.00        Time Increment(min): 5.00
DCIA(%): 0.00             Max Allowable Q(cfs): 999999.000
-----

```

=====  
Nodes  
=====

```

Name: 309                Base Flow(cfs): 0.000      Init Stage(ft): 101.000
Group: BASE              Warn Stage(ft): 103.000
Type: Stage/Area

```

Stage (ft)	Area (ac)
101.000	0.5000
102.000	1.1580
103.000	1.5220
104.000	2.1360

```

-----
Name: BOUNDARY           Base Flow(cfs): 0.000      Init Stage(ft): 98.100
Group: BASE              Warn Stage(ft): 101.000
Type: Time/Stage

```

Time (hrs)	Stage (ft)
0.00	100.250
24.00	100.500
36.00	100.750
48.00	100.500
72.00	100.250

```

-----
Name: D306               Base Flow(cfs): 0.000      Init Stage(ft): 96.240
Group: BASE              Warn Stage(ft): 103.750
Type: Stage/Area

```

Stage (ft)	Area (ac)
96.240	0.0050
103.750	0.0050

```

-----
Name: D314               Base Flow(cfs): 0.000      Init Stage(ft): 93.470
Group: BASE              Warn Stage(ft): 103.750
Type: Stage/Area

```

Stage (ft)	Area (ac)
93.470	0.0100
999.000	0.0100

```

-----
Name: Pond 302           Base Flow(cfs): 0.000      Init Stage(ft): 100.500

```

Group: BASE Warn Stage(ft): 101.050  
Type: Stage/Area

Stage(ft)	Area(ac)
100.500	3.1300
101.000	3.2200
102.000	3.3800
103.000	3.5500
104.000	3.7200

Name: Pond 303 Base Flow(cfs): 0.000 Init Stage(ft): 100.500  
Group: BASE Warn Stage(ft): 101.380  
Type: Stage/Area

Stage(ft)	Area(ac)
100.500	2.2200
101.000	2.2900
102.000	2.4300
103.000	2.5700
104.000	2.7200

Name: TRANS Base Flow(cfs): 0.000 Init Stage(ft): 100.500  
Group: BASE Warn Stage(ft): 102.000  
Type: Stage/Area

Stage(ft)	Area(ac)
-----------	----------

Name: Wetlands Base Flow(cfs): 0.000 Init Stage(ft): 100.450  
Group: BASE Warn Stage(ft): 103.000  
Type: Stage/Area

Stage(ft)	Area(ac)
100.000	6.7400
101.000	8.1900
102.000	9.2800
103.000	11.0700

#### Pipes

Name: D306D314 From Node: D306 Length(ft): 622.00  
Group: BASE To Node: D314 Count: 1  
Friction Equation: Average Conveyance  
Solution Algorithm: Automatic  
UPSTREAM DOWNSTREAM  
Geometry: Circular Circular  
Span(in): 18.00 18.00  
Rise(in): 18.00 18.00  
Invert(ft): 96.200 94.970  
Manning's N: 0.012000 0.012000  
Top Clip(in): 0.000 0.000  
Bot Clip(in): 0.000 0.000  
Entrance Loss Coef: 0.50  
Exit Loss Coef: 0.50  
Bend Loss Coef: 0.00  
Outlet Ctrl Spec: Use dc or tw  
Inlet Ctrl Spec: Use dn  
Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Name: D314D320 From Node: D314 Length(ft): 604.00  
Group: BASE To Node: BOUNDARY Count: 1  
Friction Equation: Average Conveyance  
Solution Algorithm: Automatic  
UPSTREAM DOWNSTREAM  
Geometry: Circular Circular  
Span(in): 36.00 36.00  
Entrance Loss Coef: 0.50



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Input Report  
November 10, 2006

Rise(in): 36.00	36.00	Exit Loss Coef: 0.50
Invert(ft): 94.970	93.760	Bend Loss Coef: 0.00
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dn
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

==== Channels =====

Name: Channel	From Node: Pond 303	Length(ft): 200.00
Group: BASE	To Node: TRANS	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Average Conveyance
Geometry: Trapezoidal	Trapezoidal	Solution Algorithm: Automatic
Invert(ft): 97.000	97.000	Flow: Both
TClpInitZ(ft): 9999.000	9999.000	Contraction Ccoef: 0.000
Manning's N: 0.240000	0.240000	Expansion Ccoef: 0.000
Top Clip(ft): 0.000	0.000	Entrance Loss Ccoef: 0.000
Bot Clip(ft): 0.000	0.000	Exit Loss Ccoef: 0.000
Main XSec:		Outlet Ctrl Spec: Use dc or tw
AuxElev1(ft):		Inlet Ctrl Spec: Use dn
Aux XSec1:		Stabilizer Option: None
AuxElev2(ft):		
Aux XSec2:		
Top Width(ft):		
Depth(ft):		
Bot Width(ft): 10.000	10.000	
LtSdSlp(h/v): 4.00	4.00	
RtSdSlp(h/v): 4.00	4.00	

==== Drop Structures =====

Name: 309	From Node: 309	Length(ft): 288.00
Group: BASE	To Node: Wetlands	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Average Conveyance
Geometry: Circular	Circular	Solution Algorithm: Automatic
Span(in): 24.00	24.00	Flow: Both
Rise(in): 24.00	24.00	Entrance Loss Coef: 0.500
Invert(ft): 95.500	95.180	Exit Loss Coef: 0.500
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dn
Bot Clip(in): 0.000	0.000	Solution Incs: 0

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 1 for Drop Structure 309 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Horizontal	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.100	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 36.00	Invert(ft): 101.000	
Rise(in): 24.00	Control Elev(ft): 101.000	

Name: D300	From Node: Pond 302	Length(ft): 636.00
Group: BASE	To Node: D306	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Average Conveyance
Geometry: Circular	Circular	Solution Algorithm: Automatic
Span(in): 18.00	18.00	Flow: Both

Rise(in): 18.00	18.00	Entrance Loss Coef: 0.500
Invert(ft): 97.500	96.200	Exit Loss Coef: 0.000
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dn
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 2 for Drop Structure D300 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Horizontal	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 24.00	Invert(ft): 101.230	
Rise(in): 37.00	Control Elev(ft): 101.230	

\*\*\* Weir 2 of 2 for Drop Structure D300 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Vertical: Mavis	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 18.00	Invert(ft): 100.500	
Rise(in): 999.00	Control Elev(ft): 100.500	

Name: D304	From Node: Pond 303	Length(ft): 81.00
Group: BASE	To Node: D306	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Average Conveyance
Geometry: Circular	Circular	Solution Algorithm: Automatic
Span(in): 18.00	18.00	Flow: Both
Rise(in): 18.00	18.00	Entrance Loss Coef: 0.500
Invert(ft): 97.500	97.330	Exit Loss Coef: 0.500
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dn
Bot Clip(in): 0.000	0.000	Solution Incs: 0

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 2 for Drop Structure D304 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Vertical: Mavis	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.100	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 18.00	Invert(ft): 100.500	
Rise(in): 99999.00	Control Elev(ft): 100.500	

\*\*\* Weir 2 of 2 for Drop Structure D304 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Horizontal	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 24.00	Invert(ft): 101.300	
Rise(in): 37.00	Control Elev(ft): 101.300	

Name: D316	From Node: Wetlands	Length(ft): 460.00
Group: BASE	To Node: D314	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Average Conveyance
Geometry: Circular	Circular	Solution Algorithm: Automatic
Span(in): 36.00	36.00	Flow: Both
Rise(in): 36.00	36.00	Entrance Loss Coef: 0.500

Invert(ft): 95.450	93.470	Exit Loss Coef: 0.500
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dn
Bot Clip(in): 0.000	0.000	Solution Incs: 0

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 2 for Drop Structure D316 \*\*\*

TABLE

Count: 1	Bottom Clip(in): 0.000
Type: Vertical: Mavis	Top Clip(in): 0.000
Flow: Both	Weir Disc Coef: 3.100
Geometry: Rectangular	Orifice Disc Coef: 0.600
Span(in): 24.00	Invert(ft): 100.450
Rise(in): 99999.00	Control Elev(ft): 100.450

\*\*\* Weir 2 of 2 for Drop Structure D316 \*\*\*

TABLE

Count: 1	Bottom Clip(in): 0.000
Type: Horizontal	Top Clip(in): 0.000
Flow: Both	Weir Disc Coef: 3.200
Geometry: Rectangular	Orifice Disc Coef: 0.600
Span(in): 24.00	Invert(ft): 100.900
Rise(in): 37.00	Control Elev(ft): 100.900

===== Weirs =====

Name: Weir 302	From Node: Pond 302
Group: BASE	To Node: Wetlands
Flow: Both	Count: 1
Type: Vertical: Mavis	Geometry: Trapezoidal

Bottom Width(ft): 20.00  
Left Side Slope(h/v): 4.00  
Right Side Slope(h/v): 4.00  
Invert(ft): 101.230  
Control Elevation(ft): 101.230  
Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000  
Top Clip(ft): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

Name: Weir 303	From Node: TRANS1
Group: BASE	To Node: Wetlands
Flow: Both	Count: 1
Type: Vertical: Mavis	Geometry: Trapezoidal

Bottom Width(ft): 20.00  
Left Side Slope(h/v): 4.00  
Right Side Slope(h/v): 4.00  
Invert(ft): 101.300  
Control Elevation(ft): 101.300  
Struct Opening Dim(ft): 9999.00

TABLE

Bottom Clip(ft): 0.000  
Top Clip(ft): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

===== Hydrology Simulations =====

Name: 10-72  
Filename: G:\PROJ\06012015\Civil\Calcs\AdICPR\Post-Development\10-72.R32  
Override Defaults: Yes

DAKL Post Development  
6012015 HCE  
Input Report  
November 10, 2006

Storm Duration(hrs): 72.00  
Rainfall File: Sfwmd72  
Rainfall Amount(in): 10.19

Time(hrs)	Print	Inc(min)
96.000		10.00

Name: 100-72  
Filename: G:\PROJ\06012015\Civil\Calcs\AdICPR\Post-Development\100-72.R32

Override Defaults: Yes  
Storm Duration(hrs): 72.00  
Rainfall File: Sfwmd72  
Rainfall Amount(in): 14.27

Time(hrs)	Print	Inc(min)
96.000		10.00

Name: 3-24  
Filename: G:\PROJ\06012015\Civil\Calcs\AdICPR\Post-Development\3-24.R32

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: SFWMD24  
Rainfall Amount(in): 5.40

Time(hrs)	Print	Inc(min)
8.000		10.00
10.000		5.00
14.000		1.00
36.000		10.00

==== Routing Simulations =====

Name: 10-72                      Hydrology Sim: 10-72  
Filename: G:\PROJ\06012015\Civil\Calcs\AdICPR\Post-Development\10-72.I32

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 72.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000
Boundary Stages:	Boundary Flows:

ANIMAL KINGDOM RESORTS  
10 YEAR / 72 HOUR  
POST DEVELOPMENT

Time(hrs)	Print	Inc(min)
96.000		5.000

Group	Run
BASE	Yes

Name: 100-72                      Hydrology Sim: 100-72  
Filename: G:\PROJ\06012015\Civil\Calcs\AdICPR\Post-Development\100-72.I32

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

Max Delta Z(ft): 1.00	Delta Z Factor: 0.00500
Time Step Optimizer: 10.000	
Start Time(hrs): 0.000	End Time(hrs): 72.00
Min Calc Time(sec): 0.5000	Max Calc Time(sec): 60.0000
Boundary Stages:	Boundary Flows:

ANIMAL KINGDOM RESORTS  
100 YEAR / 72 HOUR  
POST DEVELOPMENT

Time (hrs)	Print Inc (min)
96.000	5.000
Group	Run
BASE	Yes

-----  
Name: 3-24                      Hydrology Sim: 3-24  
Filename: G:\PROJ\06012015\Civil\Calcs\AdICPR\Post-Development\3-24.I32

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

Max Delta Z (ft): 1.00                      Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time (hrs): 0.000                      End Time (hrs): 60.00  
Min Calc Time (sec): 0.5000                      Max Calc Time (sec): 60.0000  
Boundary Stages:                      Boundary Flows:

ANIMAL KINGDOM RESORTS  
3 YEAR / 24 HOUR  
POST DEVELOPMENT

Time (hrs)	Print Inc (min)
10.000	5.000
14.000	1.000
36.000	5.000
60.000	10.000
Group	Run
BASE	Yes

=====  
===== Boundary Conditions =====  
=====

# Basin Summary

---

Basin Name: 302  
Group Name: BASE  
Node Name: Pond 302  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 49.00  
Time Shift (hrs): 0.00  
Area (ac): 25.600  
Curve Number: 73.300  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 55.096  
Runoff Volume (in): 6.825  
Runoff Volume (ft3): 634189.539

---

Basin Name: 303  
Group Name: BASE  
Node Name: Pond 303  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 45.00  
Time Shift (hrs): 0.00  
Area (ac): 22.100  
Curve Number: 63.100  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 42.309  
Runoff Volume (in): 5.466  
Runoff Volume (ft3): 438518.785

---

Basin Name: 309  
Group Name: BASE  
Node Name: 309  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 45.00  
Time Shift (hrs): 0.00  
Area (ac): 3.970  
Curve Number: 56.000  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 6.470  
Runoff Volume (in): 4.503  
Runoff Volume (ft3): 64887.965

---

Basin Name: AP-88  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00

---

Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 0.390  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 59.92  
Flow Max (cfs): 1.717  
Runoff Volume (in): 9.942  
Runoff Volume (ft3): 14074.341

---

Basin Name: AP-89  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara  
  
Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 0.390  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 59.92  
Flow Max (cfs): 1.717  
Runoff Volume (in): 9.942  
Runoff Volume (ft3): 14074.341

---

Basin Name: Roofs-North  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara  
  
Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 1.370  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 59.92  
Flow Max (cfs): 6.031  
Runoff Volume (in): 9.942  
Runoff Volume (ft3): 49440.656

---

Basin Name: Roofs-South  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara  
  
Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 4.560  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 59.92  
Flow Max (cfs): 20.073  
Runoff Volume (in): 9.942



---

Runoff Volume (ft3): 164561.619

---

Basin Name: Wetland  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 20.00  
Time Shift (hrs): 0.00  
Area (ac): 13.200  
Curve Number: 73.000  
DCIA (%): 0.000  
  
Time Max (hrs): 59.92  
Flow Max (cfs): 44.331  
Runoff Volume (in): 6.785  
Runoff Volume (ft3): 325115.311

---

Basin Name: Wetland Offsite  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 10.190  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 81.00  
Time Shift (hrs): 0.00  
Area (ac): 10.940  
Curve Number: 64.000  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 14.709  
Runoff Volume (in): 5.587  
Runoff Volume (ft3): 221891.121

---

Basin Name: 302  
Group Name: BASE  
Node Name: Pond 302  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 49.00  
Time Shift (hrs): 0.00  
Area (ac): 25.600  
Curve Number: 73.300  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 82.779  
Runoff Volume (in): 10.661  
Runoff Volume (ft3): 990706.010

---

Basin Name: 303  
Group Name: BASE  
Node Name: Pond 303  
Basin Type: Santa Barbara

---

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 45.00  
Time Shift (hrs): 0.00  
Area (ac): 22.100  
Curve Number: 63.100  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 67.283  
Runoff Volume (in): 9.048  
Runoff Volume (ft3): 725844.264

---

Basin Name: 309  
Group Name: BASE  
Node Name: 309  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 45.00  
Time Shift (hrs): 0.00  
Area (ac): 3.970  
Curve Number: 56.000  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 10.842  
Runoff Volume (in): 7.836  
Runoff Volume (ft3): 112921.554

---

Basin Name: AP-88  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 0.390  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 59.92  
Flow Max (cfs): 2.405  
Runoff Volume (in): 14.017  
Runoff Volume (ft3): 19844.530

---

Basin Name: AP-89  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 0.390  
Curve Number: 98.000

---

DCIA (%): 0.000

Time Max (hrs): 59.92  
Flow Max (cfs): 2.405  
Runoff Volume (in): 14.017  
Runoff Volume (ft3): 19844.530

---

Basin Name: Roofs-North  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 1.370  
Curve Number: 98.000  
DCIA (%): 0.000

Time Max (hrs): 59.92  
Flow Max (cfs): 8.449  
Runoff Volume (in): 14.017  
Runoff Volume (ft3): 69710.293

---

Basin Name: Roofs-South  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 4.560  
Curve Number: 98.000  
DCIA (%): 0.000

Time Max (hrs): 59.92  
Flow Max (cfs): 28.123  
Runoff Volume (in): 14.017  
Runoff Volume (ft3): 232028.438

---

Basin Name: Wetland  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 20.00  
Time Shift (hrs): 0.00  
Area (ac): 13.200  
Curve Number: 73.000  
DCIA (%): 0.000

Time Max (hrs): 59.92  
Flow Max (cfs): 66.529  
Runoff Volume (in): 10.616  
Runoff Volume (ft3): 508658.025

---

Basin Name: Wetland Offsite  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: Sfwmd72  
Rainfall Amount (in): 14.270  
Storm Duration (hrs): 72.00  
Status: Onsite  
Time of Conc (min): 81.00  
Time Shift (hrs): 0.00  
Area (ac): 10.940  
Curve Number: 64.000  
DCIA (%): 0.000  
  
Time Max (hrs): 60.00  
Flow Max (cfs): 23.378  
Runoff Volume (in): 9.196  
Runoff Volume (ft3): 365198.552

---

Basin Name: 302  
Group Name: BASE  
Node Name: Pond 302  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 49.00  
Time Shift (hrs): 0.00  
Area (ac): 25.600  
Curve Number: 73.300  
DCIA (%): 0.000  
  
Time Max (hrs): 12.00  
Flow Max (cfs): 25.684  
Runoff Volume (in): 2.625  
Runoff Volume (ft3): 243918.146

---

Basin Name: 303  
Group Name: BASE  
Node Name: Pond 303  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 45.00  
Time Shift (hrs): 0.00  
Area (ac): 22.100  
Curve Number: 63.100  
DCIA (%): 0.000  
  
Time Max (hrs): 12.00  
Flow Max (cfs): 14.646  
Runoff Volume (in): 1.776  
Runoff Volume (ft3): 142455.962

---

Basin Name: 309  
Group Name: BASE  
Node Name: 309  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00

---

Status: Onsite  
Time of Conc (min): 45.00  
Time Shift (hrs): 0.00  
Area (ac): 3.970  
Curve Number: 56.000  
DCIA (%): 0.000  
  
Time Max (hrs): 12.00  
Flow Max (cfs): 1.630  
Runoff Volume (in): 1.254  
Runoff Volume (ft3): 18076.518

---

Basin Name: AP-88  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 0.390  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 11.92  
Flow Max (cfs): 1.229  
Runoff Volume (in): 5.163  
Runoff Volume (ft3): 7308.668

---

Basin Name: AP-89  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 0.390  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 11.92  
Flow Max (cfs): 1.229  
Runoff Volume (in): 5.163  
Runoff Volume (ft3): 7308.668

---

Basin Name: Roofs-North  
Group Name: BASE  
Node Name: BOUNDARY  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 1.370  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 11.92  
Flow Max (cfs): 4.316  
Runoff Volume (in): 5.163

---

Runoff Volume (ft3): 25674.061

---

Basin Name: Roofs-South  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 15.00  
Time Shift (hrs): 0.00  
Area (ac): 4.560  
Curve Number: 98.000  
DCIA (%): 0.000  
  
Time Max (hrs): 11.92  
Flow Max (cfs): 14.365  
Runoff Volume (in): 5.163  
Runoff Volume (ft3): 85455.289

---

Basin Name: Wetland  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 20.00  
Time Shift (hrs): 0.00  
Area (ac): 13.200  
Curve Number: 73.000  
DCIA (%): 0.000  
  
Time Max (hrs): 11.92  
Flow Max (cfs): 21.175  
Runoff Volume (in): 2.598  
Runoff Volume (ft3): 124495.620

---

Basin Name: Wetland Offsite  
Group Name: BASE  
Node Name: Wetlands  
Basin Type: Santa Barbara

Spec Time Inc (min): 5.00  
Comp Time Inc (min): 5.00  
Rainfall File: SFWMD24  
Rainfall Amount (in): 5.400  
Storm Duration (hrs): 24.00  
Status: Onsite  
Time of Conc (min): 81.00  
Time Shift (hrs): 0.00  
Area (ac): 10.940  
Curve Number: 64.000  
DCIA (%): 0.000  
  
Time Max (hrs): 12.00  
Flow Max (cfs): 4.920  
Runoff Volume (in): 1.846  
Runoff Volume (ft3): 73309.577

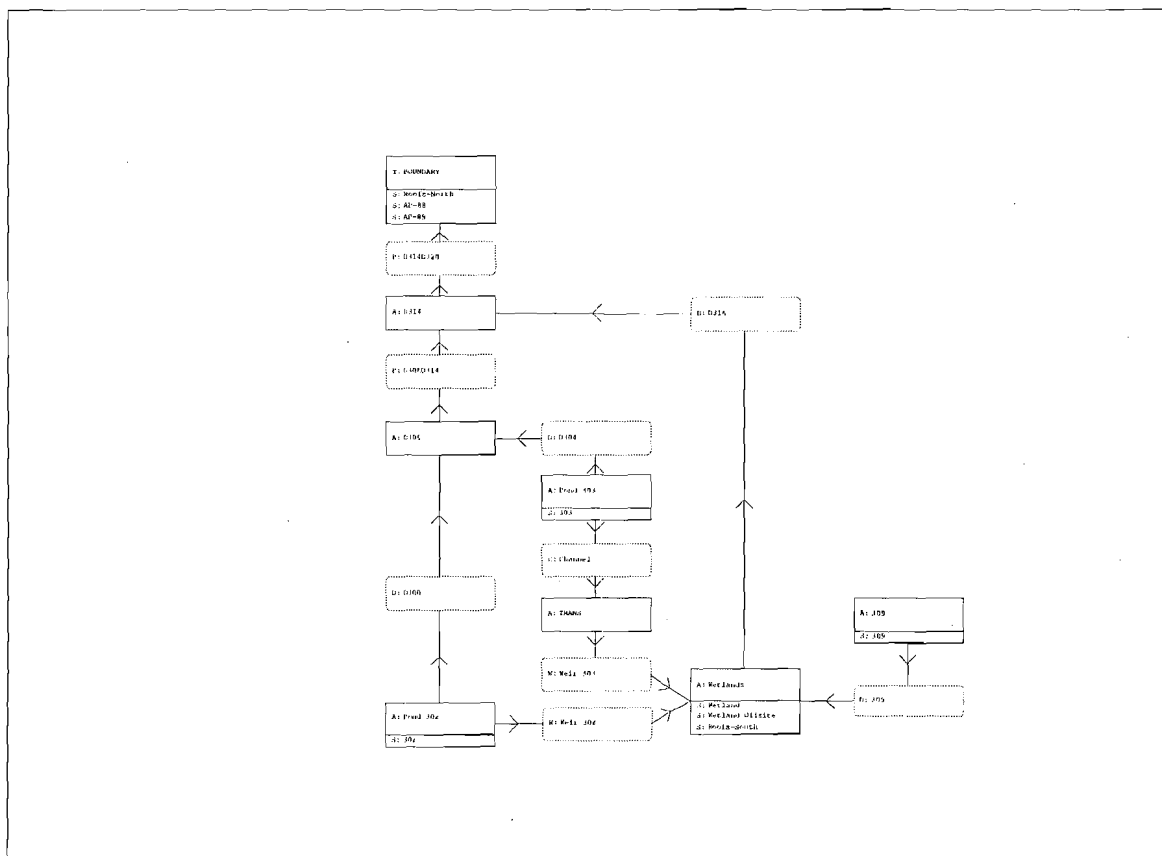
## Node Minimum/Maximum

Page 1 of 1



# Node Reach Diagram

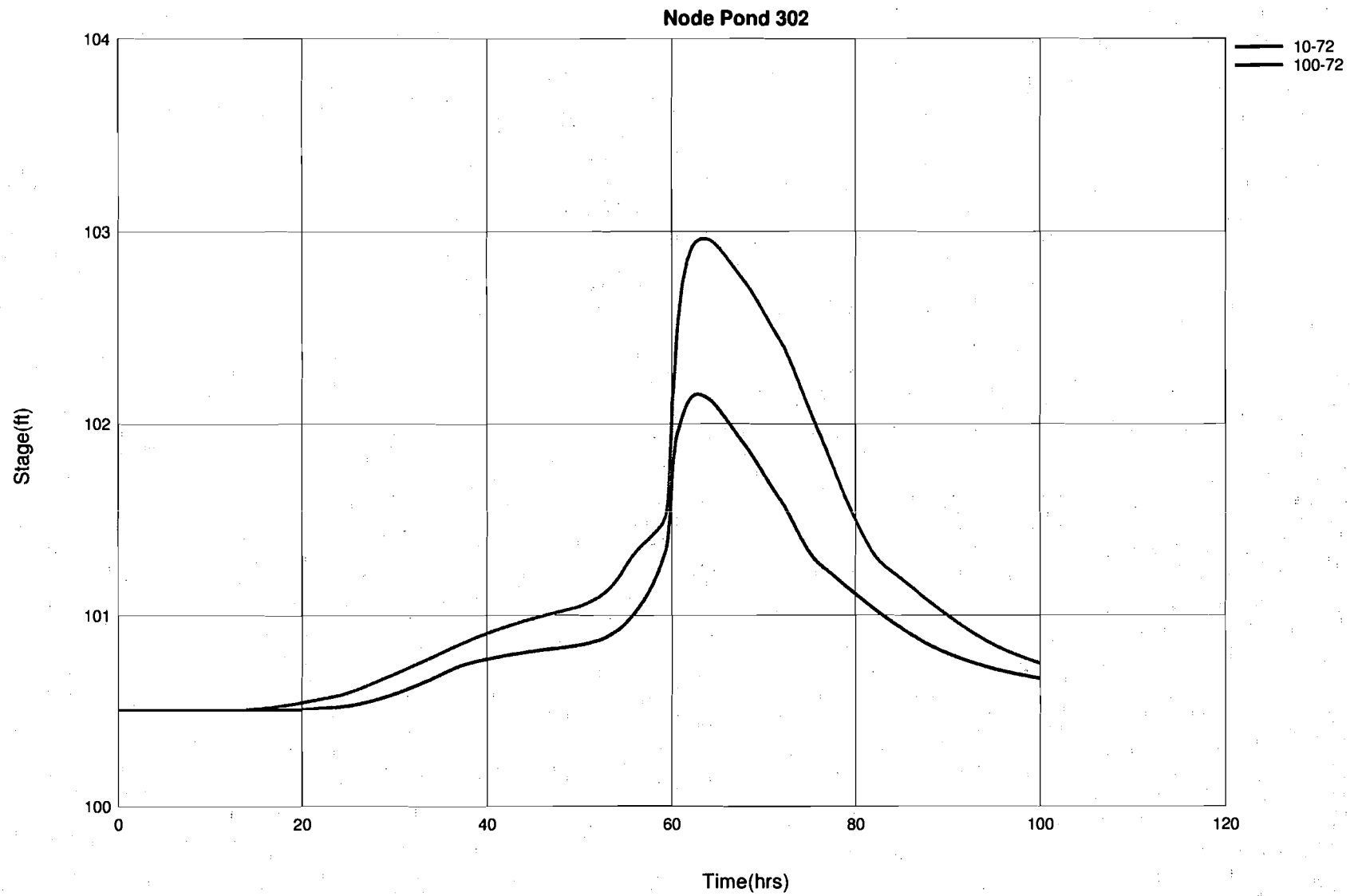
Links  
P Pipe  
W Weir  
C Channel  
D Drop Structure  
B Bridge  
R Rating Curve  
H Breach



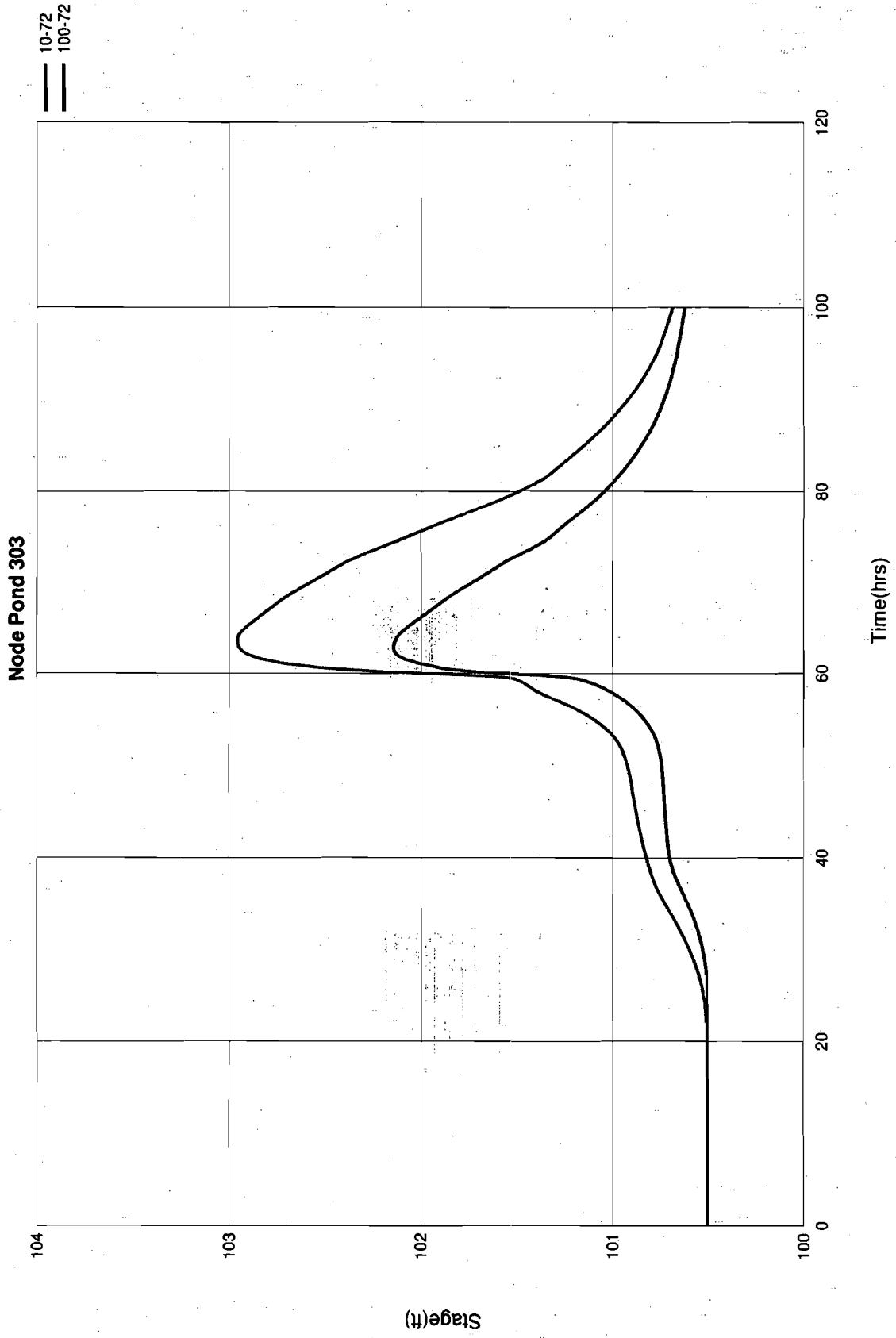
# Node Graphs

Node  
Graphs

DAKL Post Development  
6012015 HCE  
Pond 302 Graph  
November 10, 2006



DAKL Post Development  
6012015 HCE  
Pond 303 Graph  
November 10, 2006



# Geotechnical Report



**Report**  
**Preliminary Geotechnical Services**  
**Proposed Animal Kingdom DVC Resort**  
**Animal Kingdom Lodge**  
**Walt Disney World, Florida**  
**PSI Project No. 757-55438**

February 7, 2006

Walt Disney Imagineering  
P.O. Box 10321  
Lake Buena Vista, Florida 32830-0321

Attention: Mr. Tim Warzecha  
Senior Project Manager

RE: Report  
Preliminary Geotechnical Services  
Proposed Animal Kingdom DVC Resort  
Animal Kingdom Lodge  
Walt Disney World, Florida  
PSI Project No.: 757-55438

Dear Mr. Warzecha:

In general accordance with our proposal dated October 31, 2005, Professional Service Industries, Inc. (PSI) has carried out preliminary geotechnical engineering services in connection with the referenced project. This report presents an overview of our work effort on the assignment and includes preliminary recommendations related to site preparation and foundation design.

### **PROJECT CONSIDERATIONS**

The project under consideration herein is a proposed new Disney Vacation Club (DVC). The facility is to be located to the west of Animal Kingdom Lodge in Walt Disney World, Florida. A plan view of the site is included on **Sheet 1**.

At the present time, the site is generally undeveloped containing trees with an underbrush of weeds and scrub. A portion of the new construction will be located in Animal Safari areas associated with the existing lodge.

We understand that the resort is to comprise a six story building located on the west side of Animal Kingdom Lodge. Based on the site plan that you provided to us and from our discussions, we understand that the building plan footprint will be on the order of 100,000 square feet. The building will have an at-grade floor slab (i.e. no basements are planned at this time) with foundation loads being comparable with other similar facilities on property. On this basis, we would anticipate column foundation loads in the range 200 to 500 kips, with load bearing strip footings carrying between 4 and 10 kips per linear foot.



Support facilities will include recreational areas, swimming pools and pavement areas. Pavement areas will comprise at-grade parking plus interior service roads. Further Animal Safari areas will be provided for the project. Stormwater management facilities will also be provided for the new project.

The site plan has not been finalized at this time and we understand that the actual building location is subject to change.

### **SCOPE OF WORK**

PSI provided geotechnical engineering services for the existing Animal Kingdom Lodge in the 1990's. Based on our past experience and understanding of the initial project geotechnical needs at this time, we undertook a scope of work that included the following.

- Review/assimilate existing available geotechnical data for the overall Animal Kingdom Lodge site.
- Drill/sample six 50 foot deep Standard Penetration Test (SPT) borings in the area of the possible new building.
- Drill/sample eight auger borings across the site to evaluate shallow soil and groundwater conditions.
- Perform laboratory testing as necessary to stratify the subsoils and determine pertinent engineering properties/parameters.
- Review data from the field/laboratory to assess the impact of the prevailing conditions on the planned construction.
- Prepare/submit a geotechnical engineering report that transmits the factual data from the field/laboratory plus provides preliminary recommendations for site preparation and foundation design.
- Be available for consultation and meeting attendance throughout the course of the initial geotechnical study.



## SITE CONDITIONS

### General

As noted earlier, the site of the proposed new resort is located to the west of the existing Animal Kingdom Lodge in an area that is generally vacant land. A portion of the new project will however be located in existing Animal Safari areas. The plan area of the site under consideration for the new DVC Resort is on the order of 20± acres.

The ground cover across the property ranges from trees with an underbrush of scrub and palmettos to mown grass and safari areas where the animals currently roam. There are also a few areas that contain pavements at the south end of the site. Some of the animal shelters and fences are in the footprint of the new construction and these facilities will have to be relocated.

Based on topographic information provided to us by Disney Survey related to the borings that were drilled at the site, ground surface elevations range from +99 to +108 feet NGVD. The site is generally higher in the interior upland area away from the wetlands. To the north and west of the site are wetland areas. We understand that all major construction (building and pavements) will be located outside the wetland areas.

### USGS Quadrangle Map

Reference to the USGS quadrangle map for the area indicates ground surface elevations in the range +100 to +105 feet NGVD. These elevations are reasonably consistent with those of the surveyed borings. The wetland areas are visible on the quad map as well as a few dirt trails. A former borrow pit is also visible on the quadrangle map to the south/east of the site. This borrow pit has been partially reclaimed and incorporated into the existing Animal Kingdom Lodge Resort.

### SCS Soil Survey

The surficial soils throughout Florida (i.e. soils in the upper 80 inches) have been mapped by the USDA Soil Conservation Service (SCS). Reference to the August 1989 Soil Survey for Orange County indicates three surficial soil groups to be present in the upland areas of the project site. These surficial soil groups are as below.

- 4 - Candler fine sand
- 34 - Pomello fine sand
- 54 - Zolfo fine sand

As the names suggest, these soil groups comprise a varying sequence of fine sands. The surficial sands typically grade from being relatively clean to slightly silty and occasionally silty in composition (i.e. SP, SP/SM and SM materials). The SCS Soil Survey notes that for groups 34 and 54, the normal wet season high groundwater table is typically in the range 2 to 3.5 feet below grade. For Candler fine sand, soil group 4, the normal wet season high water table is noted by the SCS to typically be at depths in excess of 6 feet below grade.



At the edges of, and within the wetland areas, the water table will be higher (possibly above the ground surface for periods of the year), plus surface organic soils may be present in these low lying areas.

## **SUBSURFACE CONDITIONS**

### **General**

Subsurface conditions at the site were evaluated in a preliminary manner by drilling a series of borings. As noted earlier, the field program included drilling/sampling six SPT borings in the potential building areas, plus eight site wide auger borings.

The SPT borings were completed using rotary wash techniques and sampled following guidelines/procedures as outlined in ASTM D-1586. The SPT borings were advanced to 50 feet below grade. The boring locations were staked in the field by Disney Survey. Coordinate/ground surface elevation information on the borings is included in **Table 1**. The approximate locations at which the borings were drilled are shown on **Sheet 1**.

As a condition of the dig permit, several borings had to be started by augering to 6 feet to check for potential utilities. In general, the SPT samples were recovered at 2 foot centers to 10 feet then at 5 foot intervals thereafter to boring termination. On completion of drilling operations, the boreholes were grout sealed and the area generally cleaned up.

Eight site wide auger borings were drilled to assess shallow soil and groundwater conditions. The auger borings were drilled by screwing the auger into the ground to 6 feet below grade. On extraction of the auger from the ground, samples were recovered from the flights for visual stratification and potential laboratory testing. Boring AB-5 was only advanced to 3 feet due to encountering groundwater fairly shallow.

The samples recovered from the borings were returned to our Orlando office for visual stratification and select testing. The subsoils were stratified in general accordance with the Unified Soil Classification System (USCS). Records of the materials encountered in the borings are presented as soil profiles on **Sheet 2**. This sheet includes a legend describing the subsoils in USCS format.

In addition to the visual stratification of the soil samples, laboratory testing included moisture content determinations and Number 200 wash sieves on select representative samples. The results of the laboratory tests are included with the soil profiles on **Sheet 2**.

### **Stratigraphy**

Reference to **Sheet 2** indicates reasonably consistent subsoil conditions at the site. For the purpose of discussion, these conditions have been generalized as follows.

From the ground surface to depths of 50 feet below grade, the six SPT borings disclosed a varying sequence of fine sands. The sands grade from being relatively clean to slightly silty and



occasionally silty in composition. The upper several inches contain roots and organic matter associated with the surface ground cover.

SPT blow counts indicate the sands to generally be in a loose to medium dense condition with blow counts ranging between 4 to 30 blows per foot. Localized areas are present in the soil column where the sands grade dense. Additionally, there are zones in the upper soil column where the sands grade weakly to partially cemented. These weakly/partially cemented materials are known locally as hardpan.

The site wide auger borings similarly disclosed clean to slightly silty fine sands to depths of 3 to 6 feet below grade (depth of exploration).

In general, the borings have disclosed subsoil conditions that are reasonably consistent with our understanding of the geology in this area of the Walt Disney World property, including the adjacent Animal Kingdom Lodge site.

#### Groundwater

Groundwater level measurements were made in the borings at the time of drilling. These measurements disclosed the water table at depths in the range 2.5 to 8.0 feet below grade. The depth changes are primarily as a result of elevation differences between the borings with the water table being shallowest at the lower elevations of the site and deeper in the higher elevations. Based on the topographic information provided at each boring site plus the observed water depths, groundwater elevations range from the high 90's to low 100's.

Water levels will fluctuate seasonally in response to rainfall or lack thereof, plus water levels will be influenced by irrigation practices. Consistent with the SCS Soil Survey and from our experience at the Animal Kingdom Lodge site, we would expect the normal wet season high water table to be within one foot of the ground surface adjacent to the wetland areas, to 6 feet or more below grade at the higher ground elevations.

### DISCUSSIONS AND RECOMMENDATIONS

#### General

Based on the results of the borings, we consider the subsoil conditions generally suitable for development and support of a six story building on shallow foundations. Normal site preparation and subgrade compaction activities should be contemplated at this time. Such work would include site clearing/stripping with root raking as necessary, followed by surface proof rolling with a self-propelled vibratory compactor.

For preliminary design purposes, shallow foundations can be sized using an allowable design bearing value of 3,000 pounds per square foot. A normal flexible pavement section can be used for the project.

Preliminary recommendations related to site preparation and foundation design follow.



### Site Preparation Considerations

The site should be cleared of unwanted ground cover, including any ancillary buildings and buried utilities. Demolition work should be carried out in accordance with current regulatory criteria. This work should include removing building foundations and buried utilities. The excavations resulting from the removal of these facilities should be infilled with clean compacted sand.

In areas not containing buildings or pavements, initial site preparation should include removing the surface vegetation and topsoil with the roots of major trees and scrub being removed in their entirety. This work should be carried out by raking/screening in an effort to minimize the amount of potentially useable sand that is removed with the vegetation. The strippings should be properly disposed of, off site.

The limits of clearing and stripping should at a minimum extend 5 feet beyond the outside edges of proposed new building and pavements.

Following initial site preparation, the subgrade soils in the building areas should be proof rolled. Proof rolling operations should be carried out using a large self-propelled vibratory compactor. Subgrade soils should be compacted to achieve at least 95 percent of the material's ASTM D-1557 maximum dry density for a depth of 2 feet. The subgrade soils should be properly moisture conditioned to facilitate compaction operations.

If unstable/yielding soils are encountered during proof rolling operations, then such materials should be removed and replaced with clean sand fill that is thoroughly and uniformly compacted.

Material required for the building pads and other engineered fills for the project should consist of clean sand that is free of organic matter and other deleterious substances. Structural fill should have a fines content that does not exceed 10 percent (i.e. less than 10 percent by dry weight passing the U.S. Standard Number 200 sieve).

Engineered fill should be placed at a moisture content near optimum and in uniform lifts not exceeding 12 inches in loose thickness. The fill should be compacted to at least 95 percent of its ASTM D-1557 maximum dry density.

### Foundation Design Considerations

As noted earlier, we anticipate the building having maximum column loads not exceeding 500 kips with strip load bearing wall footings carrying in the range 4 to 10 kips per linear foot. On this basis, it is our opinion that the building can be supported on conventional spread footings that are based in compacted subsoils that are prepared as noted herein.

Following ground improvement by proof rolling, the building can be supported on shallow foundations that are designed for a net allowable bearing pressure of 3,000 pounds per square foot. Column footings should have a minimum width of 3 feet and be embedded at least 18 inches below the lowest adjacent grade. Strip footings should have a minimum width of 2 feet.



Resistance to lateral loads may be provided by earth pressure mobilized on the buried vertical faces of the footings and by shearing forces acting along the footing subgrade interface. Earth pressure resistance may be determined using an equivalent fluid density of 180 pcf for moist soil and 90 pcf for submerged soil below the water table. A friction factor of 0.35 should be used to determine base shearing resistance.

For shallow foundations that are constructed atop soils that are prepared as discussed earlier in this report, our preliminary settlement estimates project total vertical movements on the order of one inch. This estimate assumes that the most heavily loaded column of the building does not exceed 500 kips. Given the relatively granular nature of the subsoils that will be stressed by the shallow spread footings, foundation settlements should occur rapidly once structural loads are applied. Differential settlements are not expected to exceed one-half inch.

Slab-on-grade construction may be used for the ground floor of the building. Any cuts that are made in the building pad for utility installation should be backfilled with clean granular materials that are compacted to at least 95 percent of their ASTM D-1557 maximum dry density. Material to be placed within 12 inches of the bottom of the slabs should have no single particle greater than 3 inches and should have less than 10 percent by dry weight of fines.

The floor slabs should be reinforced with steel mesh or a suitable equivalent. To avoid potential problems with cracking because of differential loadings, the floor slabs should be liberally jointed and separated from columns and walls. An impervious membrane should be installed between the soil subgrade and bottom of floor slab areas to be overlain with moisture sensitive coverings. Use of such a moisture barrier should minimize slab moisture problems.

#### Earth Pressures on Walls

Retaining walls should be designed to resist pressures exerted by the adjacent soils and hydrostatic head. For walls that are not restrained during backfilling but are free to rotate at the top, active earth pressure should be used in design. Walls that are restrained should be designed assuming at-rest pressures. Recommended equivalent fluid densities for each pressure condition are presented below.

##### Active Pressure

Above water table - 35 pcf  
Below water table - 80 pcf

##### At-Rest Pressure

Above water table - 50 pcf  
Below water table - 90 pcf

The above recommended pressures assume that adequate drainage is provided behind the walls to prevent the build up of excess hydrostatic pressures. This can be achieved by installing drains, using geotextiles or backfilling with free draining sand in association with adequate weep holes.



### Pavement Design Considerations

The results of the auger borings performed indicate that the subgrade soil conditions are of suitable texture and, upon preparation as recommended in this report, would be capable of supporting a flexible (limerock base), semi-flexible (soil-cement base), or rigid (concrete) pavement section. The estimated seasonal high groundwater levels at this site should be considered in the choice of a base material and in the planning of pavement grades. If finished pavement grades permit a separation of at least 18 inches between the estimated wet season groundwater level and the bottom of the pavement base, then either soil-cement or limerock base material may be used. Where the separation will be consistently less than 18 inches, soil-cement would be the preferred base course and pavement underdrains may be necessary. Because pavement underdrains may clog during the design life of the pavement structure requiring periodic maintenance and potentially causing pavement structure deterioration, we strongly recommend site filling in lieu of groundwater level control from pavement underdrains.

If limerock is selected, we recommend the thickness of the base be a minimum of 6 inches within the parking areas and not less than 8 inches within heavy traffic areas such as main driveways and areas likely to be serviced by trucks. In addition, a stabilized subbase would be required with a minimum Florida Bearing Value (FBV) of 50 psi with the same thickness as the limerock base. Both the subbase and base should be compacted to a minimum density equivalent to 95 percent of the material's Modified Proctor maximum dry density per AASHTO T-180.

If soil-cement is used, the base thickness should be a minimum of 6 inches within the parking areas and 8 inches within the heavy traffic areas specified above. For a soil-cement base pavement section, a stabilized subbase would not be required. However, the subgrade soils should be compacted to a minimum density of 95 percent of the soils' Modified Proctor maximum dry density as tested to a depth of one foot below the pavement base. The soil-cement base should be compacted to a minimum of 98 percent of the Standard Proctor Density per AASHTO T-134 and should have a minimum 7-day laboratory design compressive strength of 300 psi.

The asphaltic concrete wearing surface should be Type S and should have a minimum thickness of 1½ inches within parking areas and 2 inches within any heavy traffic areas. The surface should be rolled to produce a minimum density equivalent to 95 percent of the laboratory density as determined by the Marshall Stability test method.

All testing should be conducted in accordance with RCID requirements. Materials used in the construction of the pavement section should conform to the latest edition of the Florida Department of Transportation (FDOT) Standards for Road and Bridge Construction.



### **RECOMMENDATIONS FOR FURTHER WORK**

The work carried out to date is preliminary to evaluate the general suitability of the subsurface conditions at the site to provide adequate support to a six story high vacation club building. When the building layout is finalized and foundation loads are better defined, we consider it prudent that further structure specific borings be completed and that additional engineering evaluations be carried out to confirm the appropriateness of the preliminary recommendations presented herein. The results of the additional work will be presented in a design level geotechnical report. The design level report will incorporate and consider the data obtained during this preliminary work effort.

### **REPORT LIMITATIONS**

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This company is not responsible for the conclusions, opinions or recommendations made by others based on these data.

The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated. If any subsoil variations become evident during the course of this project, a re-evaluation of the recommendations contained in this report will be necessary after we have had an opportunity to observe the characteristics of the conditions encountered. The applicability of the report should also be reviewed in the event significant changes occur in the design, nature or location of the proposed structures.

The scope of our services does not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in the soil, groundwater, or surface water within or beyond the site studied. Any statements in this report regarding odors, staining of soils, or other unusual conditions observed are strictly for the information of our client.



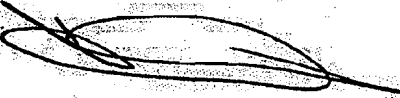


**CLOSURE**

We appreciate the opportunity to be of service to you on this project and we trust that the foregoing is responsive to your needs at this time. In the event that you have any questions, or if you require additional information, please call.

Very truly yours,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**  
**Certificate of Authorization 3684**



Ian Kinnear, P.E.  
Chief Geotechnical Engineer  
FL Registration No. 32614

IK:cd:IK\75755438(Animal Kingdom DVC Resort)207.doc

cc: Mr. Bruce MacDonald – Walt Disney Imagineering

**Appendix**

- Table 1
- Sheets 1 and 2

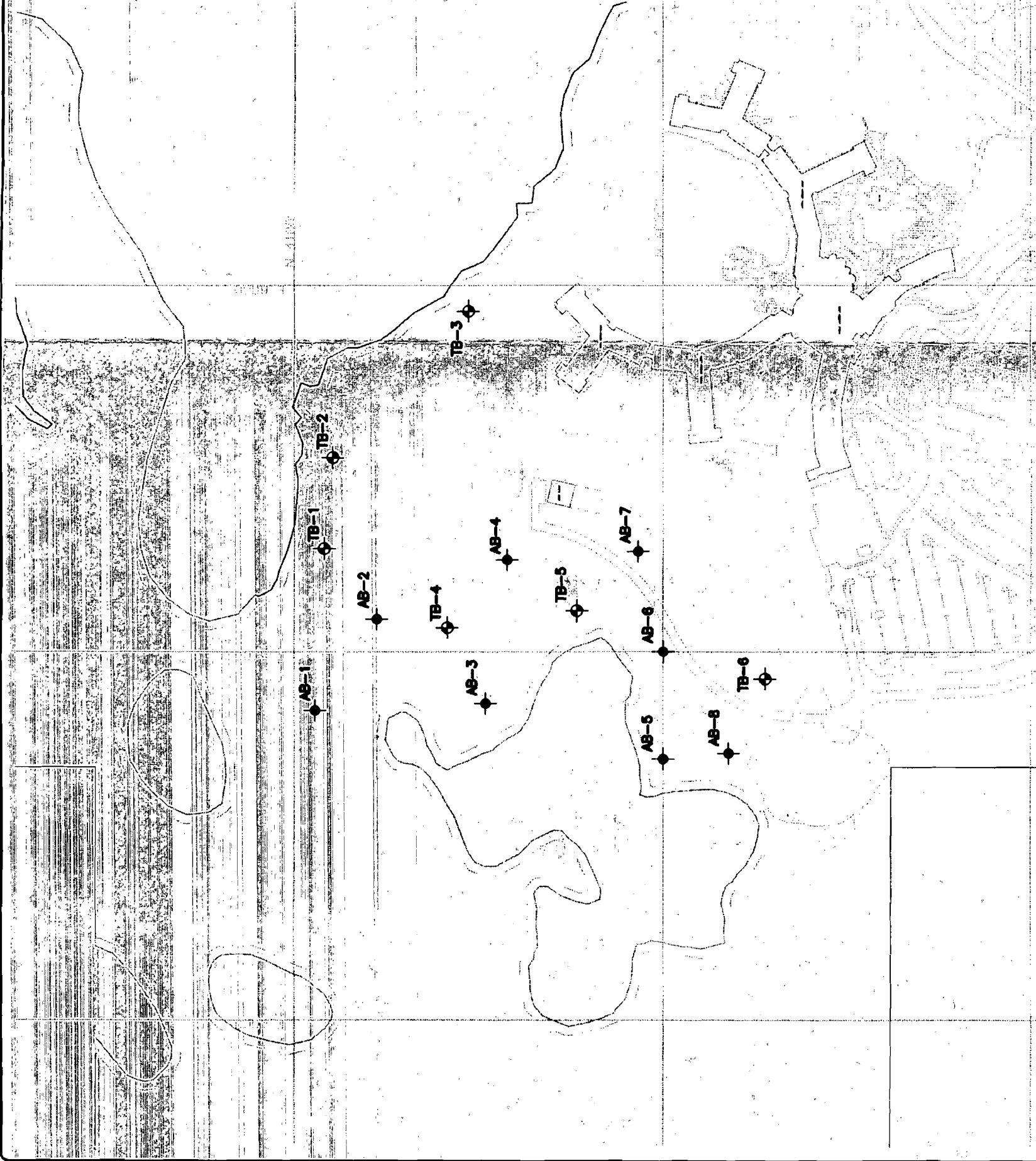


## APPENDIX

**TABLE 1**  
**Summary of Boring Locations**  
**Animal Kingdom Lodge DVC Resort**  
**Walt Disney World, Florida**

Boring Number	Northing	Easting	Ground Elevation
TB-1	40920	5280	103.8
TB-2	40900	5530	103.5
TB-3	40530	5930	101.9
TB-4	40580	5070	107.9
TB-5	40230	5110	103.3
TB-6	39720	4930	104.5
AB-1	40950	4870	105.3
AB-2	40770	5090	107.2
AB-3	40480	4880	104.4
AB-4	40420	5230	106.9
AB-5	40005	4719	98.9
AB-6	40000	5000	104.5
AB-7	40084	5266	105.3
AB-8	39820	4740	104.2

Coordinate and ground surface elevation information from Disney Survey Dept.

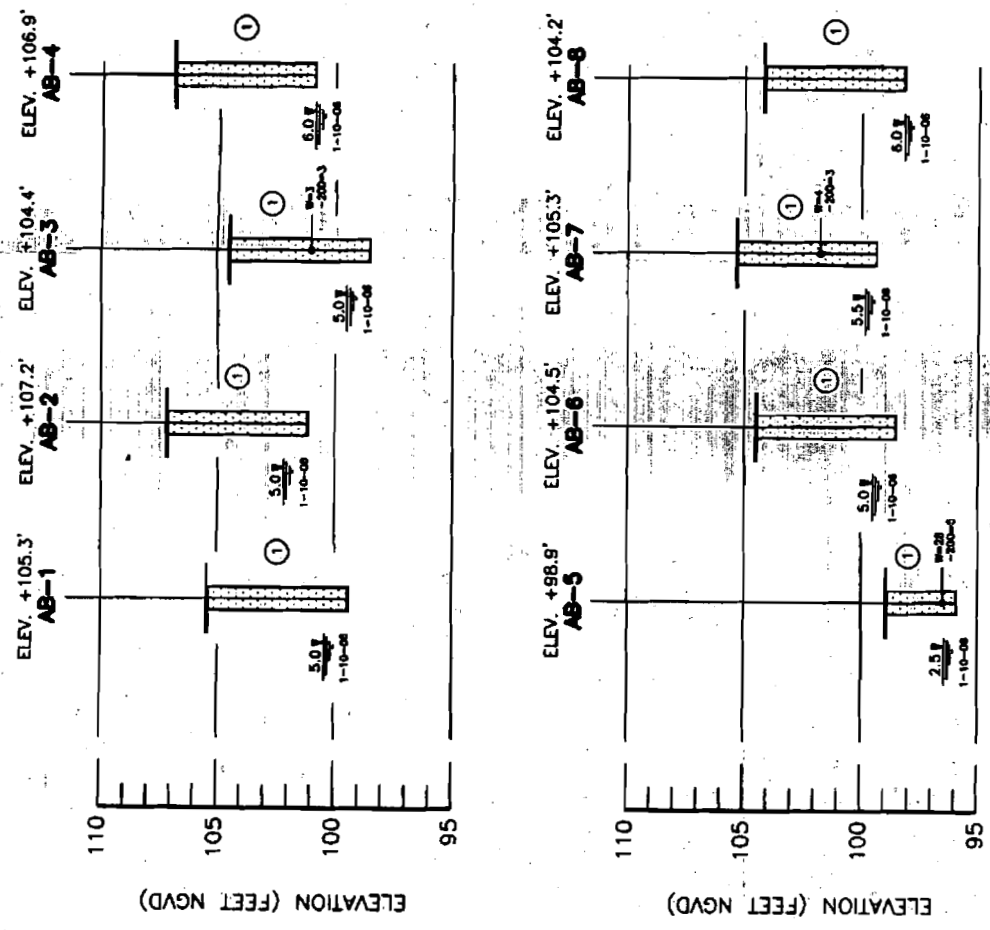
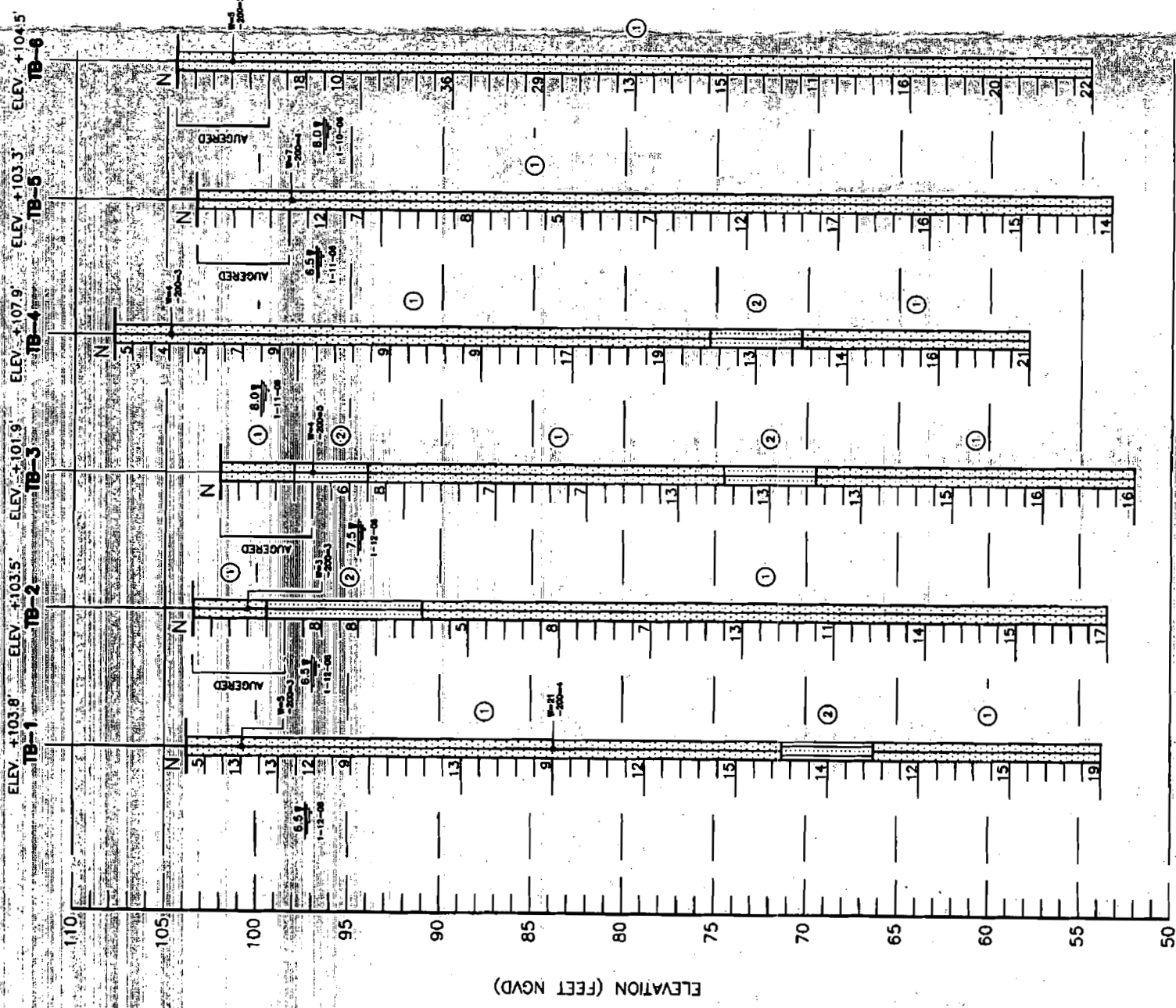


- LEGEND**
- APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING
  - APPROXIMATE LOCATION OF AUGER BORING

**LOCATION PLAN**  
SCALE: 1"=200'

PRELIMINARY GEOTECHNICAL ENGINEERING SERVICES	
ANIMAL KINGDOM LODGE DVC	
WALT DISNEY WORLD, FLORIDA	
<b>psj</b> <i>Information To Build On</i>	
Engineering • Consulting • Testing	
DATE: 1-17-06	PROJECT NO.: 757-55438
SHEET: 1	

FIELD:	
DRAWN:	DW
CHECKED:	IK
APPROVED:	IK
HORIZONTAL SCALE:	NOTED
VERTICAL SCALE:	NOTED



FIELD:	
DRAWN:	DWP
CHECKED:	IK
APPROVED:	IK
HORIZONTAL SCALE:	NOTED
VERTICAL SCALE:	NOTED

PRELIMINARY GEOTECHNICAL ENGINEERING SERVICES  
ANIMAL KINGDOM LODGE DVC  
WALT DISNEY WORLD, FLORIDA

**PSI** Information  
To Build On  
Engineering Consulting • Testing

DATE: 2-1-06 PROJECT NO.: 757-55438 SHEET: 2

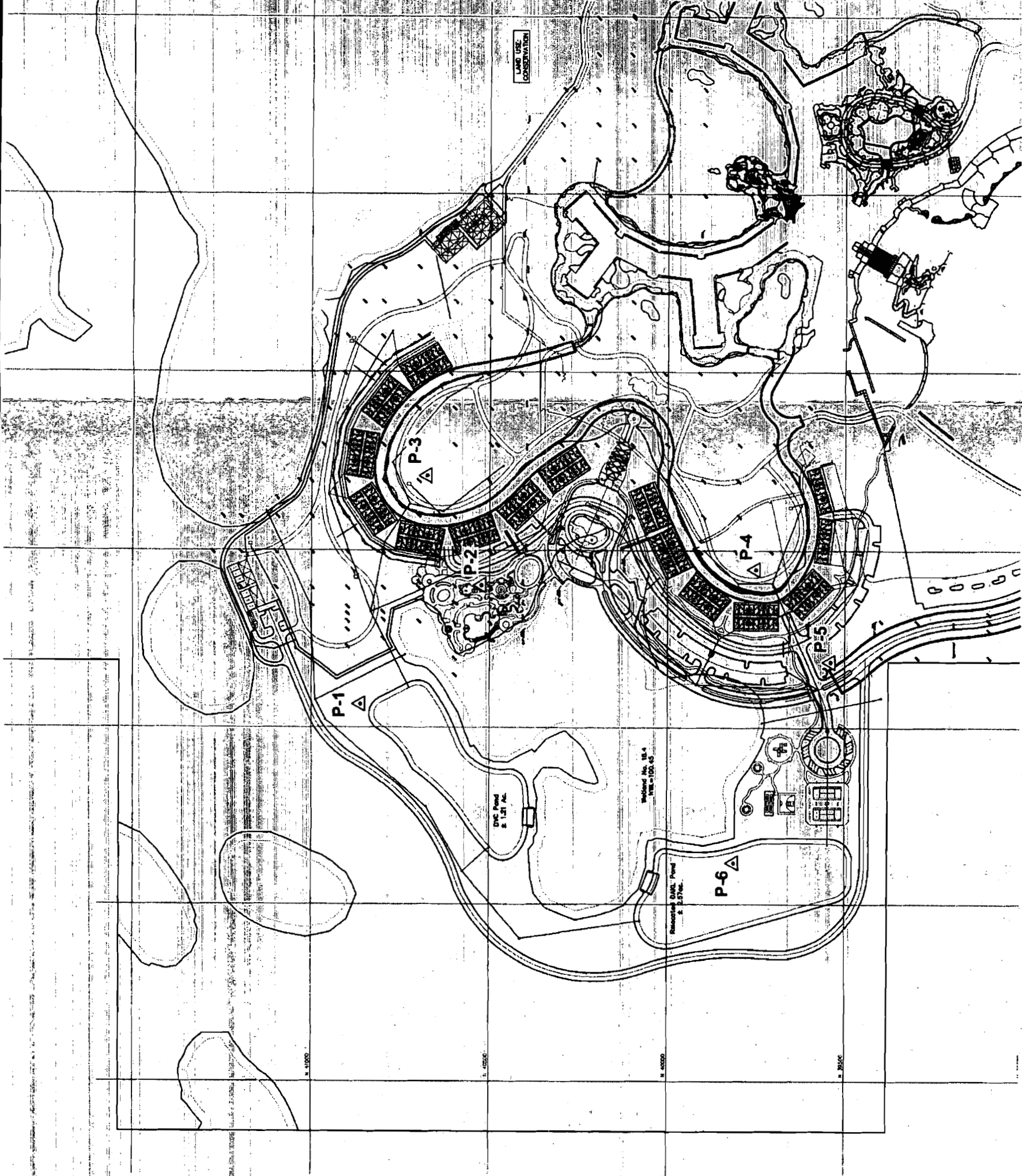


**LEGEND**  
△ APPROXIMATE LOCATION OF  
PIEZOMETER

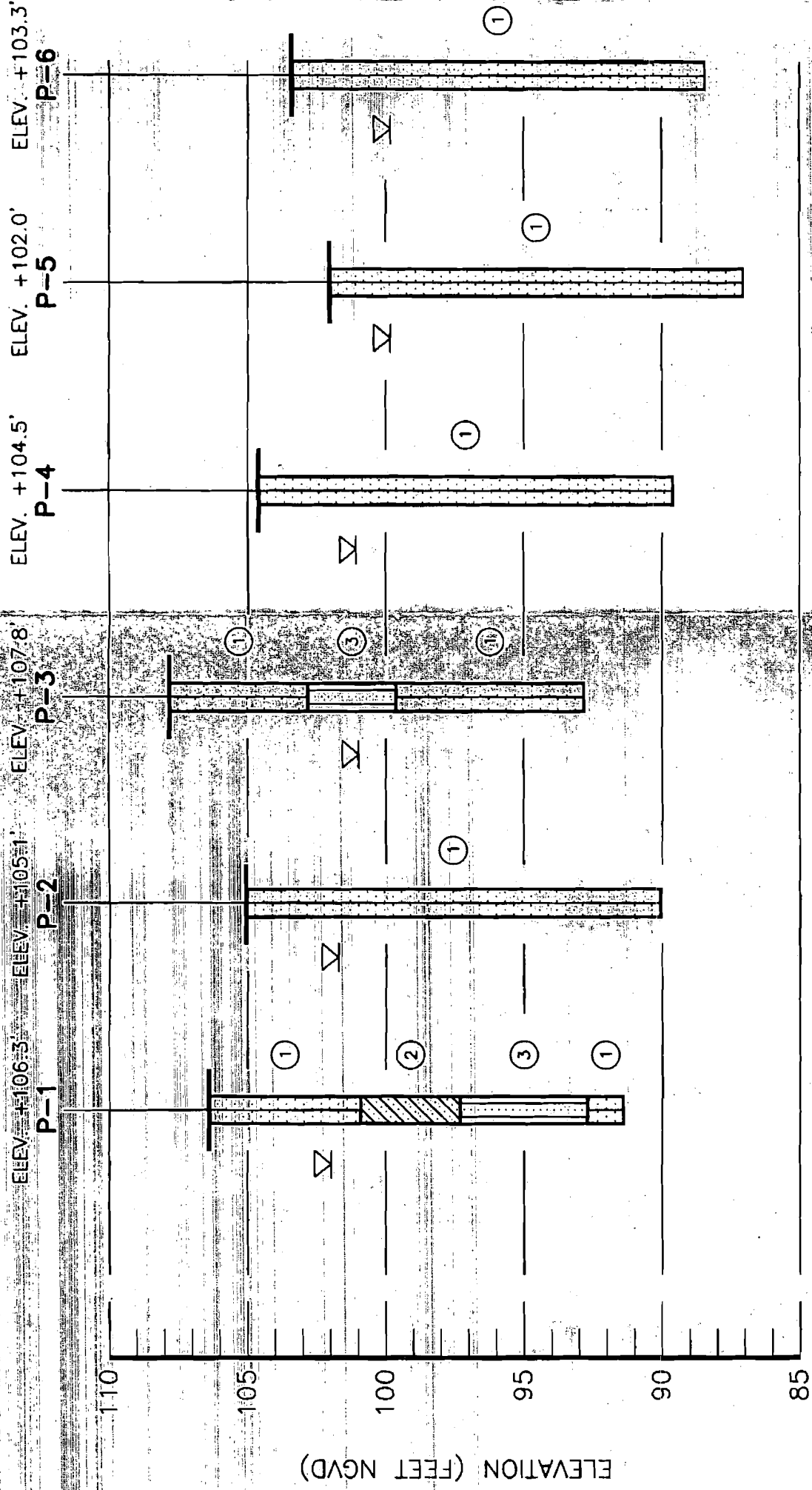
GEOTECHNICAL ENGINEERING SERVICES  
**PIEZOMETERS AT DVC RESORT  
ANIMAL KINGDOM LODGE**  
WALT DISNEY WORLD, FLORIDA

**psi** *Information  
To Build On*  
Engineering • Consulting • Testing

DRAWN: DJW	SCALE: 1"=300'	PROJ. NO: 757-65089
CHKD: IK	DATE: 5-24-06	SHEET: 1







**SOIL PROFILES**  
SCALE: 1"=5'

**LEGEND**

- ① LIGHT BROWN TO DARK GRAY-BROWN FINE SAND TO SLIGHTLY SILTY FINE SAND, (SP), (SP-SM)
- ② LIGHT BROWN CLAYEY FINE SAND, (SC)
- ③ LIGHT BROWN SILTY FINE SAND, (SM)
- (SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
- △ ESTIMATED NORMAL WET SEASON HIGH WATER TABLE

GEOTECHNICAL ENGINEERING SERVICES  
**PIEZOMETERS AT DVC RESORT**  
**ANIMAL KINGDOM LODGE**  
WALT DISNEY WORLD, FLORIDA

**psi** *Information*  
*To Build On*

Engineering Consulting Testing

DRAWN: DJW	SCALE: NOTED	PROJ. NO: 757-65089
CHKD: IK	DATE: 5-24-06	SHEET: 2

# Piezometer Report





May 24, 2006

**Walt Disney Imagineering**  
P.O. Box 10321  
Lake Buena Vista, Florida 32830-0321

Attention: Mr. Tim Warzecha  
Senior Development Manager

RE: Summary of Findings  
Installation and Monitoring of Piezometers  
Animal Kingdom Lodge DVC Resort  
Walt Disney World, Florida  
PSI Project No. 757-65089

Dear Mr. Warzecha:

In general accordance with our proposal to you dated March 10, 2006, Professional Service Industries, Inc. (PSI) installed and monitored six piezometers at the noted site. This letter presents a summary of findings of our work effort on the assignment to date.

On April 10, 2006, six shallow piezometers were installed at the site of the proposed Disney Vacation Club (DVC) Resort at Animal Kingdom Lodge. The piezometers were installed at the approximate locations shown on **Sheet 1**. The piezometer locations were established in the field by Disney Survey prior to our arrival on site. The locations were adjusted slightly to avoid animal enclosures and the like. Survey information on the piezometers is included on **Table 1** attached.

The piezometers were installed in augered boreholes. Soil profiles from the borings are included on **Sheet 2**. The piezometers were constructed of schedule 40 pvc pipe (2 inch diameter). The piezometers are 15 feet deep. The lower 5 feet is slotted (0.010 inch slot) with the annular space between the soil and pipe surrounded by 20/30 filter sand. The piezometers were then completed with solid pipe that sticks up some two to three feet above existing grade, being finished with a cap.

The piezometers have been read on three separate occasions since installation, April 13 and 28, 2006 plus May 1, 2006. The results of the readings are summarized in **Table 2**. A review of the soil profiles on **Sheet 2** indicates the subsoils in the upper 15 feet to generally comprise clean to slightly silty fine sands (i.e. SP and SP-SM materials). Interbedded within the upper sands are discontinuous layers of silty or clayey fine sands (SM and SC materials).

Water levels were measured at depths in the general range 5 to 14 feet below grade between April 13 and May 1, 2006. The water level measurements correspond to elevations in the range +93 to

+97 feet. The past several months have been very dry and water levels are presently low. Based on the results of our earlier work at the site, a review of the SCS Soil Survey data and our experience in the area, we would expect water levels to rise some 4 to 6 feet above present levels in the wet season. The estimated normal wet season high groundwater level at each location is shown on the soil profiles on **Sheet 2**.

We appreciate the opportunity to be of service on this project and we trust that the foregoing and accompany attachments are of assistance to you at this time. In the event that you have any questions or if you require additional information, please call.

Sincerely,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**  
**Certificate of Authorization No. 3684**



Ian Kinnear, P.E.  
Chief Geotechnical Engineer  
FL License No. 32614

IK:cd  
IK\757-65089\Piezometers, AK DVC Resort\524.doc

cc: Mr. Bruce MacDonald – Walt Disney Imagineering  
Mr. Steve Dieter, P.E. – Harris Civil Engineers, LLC

**Attachments**

- Tables 1 and 2
- Sheets 1 and 2



**TABLE 1**  
**Summary of Piezometer Locations**  
**Animal Kingdom Lodge DVC Resort**  
**Walt Disney World, Florida**

Number	Northing	Easting	Ground
P-1	40863	4565	106.3
P-2	40524	4903	105.1
P-3	40676	5211	107.8
P-4	39753	4947	104.5
P-5	39541	4684	102.0
P-6	39813	4118	103.3

Coordinate and ground surface elevation  
information from Disney Survey.

**TABLE 2**  
**Summary of Piezometer Readings**  
**Animal Kingdom Lodge DVC Resort**  
**Walt Disney World, Florida**

Number	Ground	April 13, 2006		April 28, 2006		May 1, 2006	
		Depth	Elev.	Depth	Elev.	Depth	Elev.
P-1	106.3	10.3	96.1	10.7	95.6	13.7	92.6
P-2	105.1	8.9	96.2	9.3	95.8	12.2	92.9
P-3	107.8	11.1	96.7	11.8	96.0	14.5	93.3
P-4	104.5	8.3	96.3	8.5	96.0	10.9	93.6
P-5	102.0	5.6	96.4	6.3	95.7	8.6	93.4
P-6	103.3	6.8	96.5	7.2	96.1	9.8	93.5

# De-Mucking Report

## MEMORANDUM

TO: Mr. Tim Warzecha, Senior Development Manager – Walt Disney Imagineering

FROM: Mr. Ian Kinnear, P.E. - PSI

CC: Mr. Bruce MacDonald – Walt Disney Imagineering  
Mr. Steve Dieter, P.E. – Harris Civil Engineers, LLC

DATE: July 18, 2006

RE: Summary of Muck Probes  
Westerly Wetland Area  
Animal Kingdom Lodge DVC Resort  
Walt Disney World, Florida  
PSI Project No. 757-65089

This memo transmits the results of muck probes that we carried out at the noted site a few months ago. The area under consideration is on the east side of Wetland No. 18.4, which is located on the west side of the proposed new resort project. The area of wetland under consideration occupies a plan area of slightly less than one acre. The area is to be reclaimed for use as an entrance road to the resort.

The probe locations were established in the field by Disney Survey Department. Additionally, Disney Survey carried out independent probing to assess the thickness of the surface organic soils. The location at which the probes were completed and the results of the same are included on Sheet 1. The probes were generally completed on a 50 foot grid.

The probes completed by us were carried out by manually advancing a one half inch diameter rod into the ground. The depth to practical refusal to manual penetration of the rod is noted as the thickness of the surface organic soils. It should be noted that the probe rod penetration may be terminated as result of encountering a root or a sand lens in the organic soil matrix in which case the organic soils would be locally thicker than noted by the probe. This inherent limitation to this exploration technique should be borne in mind when reviewing muck probe data.

The results of the probes are included on Sheet 1. As may be noted from Sheet 1, we observed surface organic soils ranging in thickness from less than one foot to slightly greater than 20 feet in the area evaluated. This is reasonably consistent with the results of the probes carried out by Disney Survey. At the end of May 2006, we drilled/sampled four Standard Penetration Test (SPT) borings in the wetland area. These borings were drilled at the approximate locations shown on Sheet 1, with the results being included as soil profiles on Sheet 2.

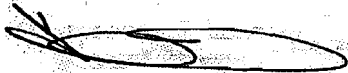
The borings disclosed surface organic soils, primarily peat that ranged in thickness from 1 to 8 feet at the locations drilled. The area of thick organic soils (greater than 10 feet) appears confined to the northeast near the proposed turnaround/drop off area. Prior to commencing earthwork on this project you may wish to consider having a backhoe dig a few pits across the site to also confirm the composition and thickness of the organic soils.

Based on the results of the borings and probes, plus our understanding of the future use, we recommend at this time that the wetland area be reclaimed by excavation and replacement filling. This work should be carried out in the dry to confirm that the unsuitable materials are adequately removed and to facilitate the compaction of the replacement sand fill. The replacement fill should be placed in maximum one foot thick lifts with each lift being compacted to at least 95 percent of the material's ASTM D-1557 maximum dry density.

We appreciate the opportunity to be of continued service on this project and we trust that the foregoing and accompanying attachments are of assistance to you at this time. In the event that you have any questions or if you require additional information, please call.

Regards,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**



Ian Kinnear, P.E.  
Chief Geotechnical Engineer

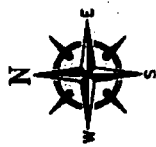
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IK\757-65089M (Muck Probes, AK Lodge DVC Resort)718.doc

**Attachments**

- Sheets 1 and 2

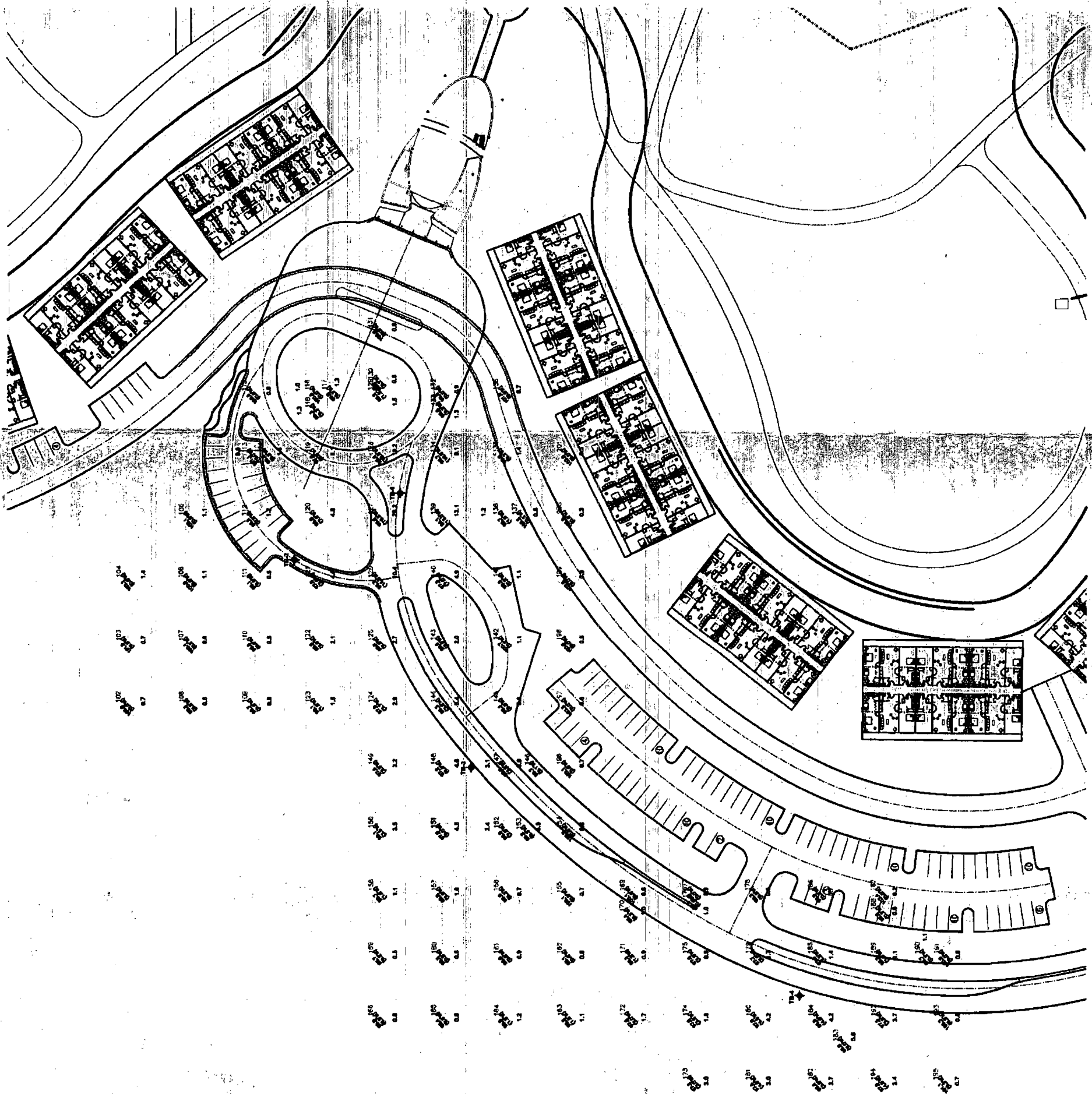




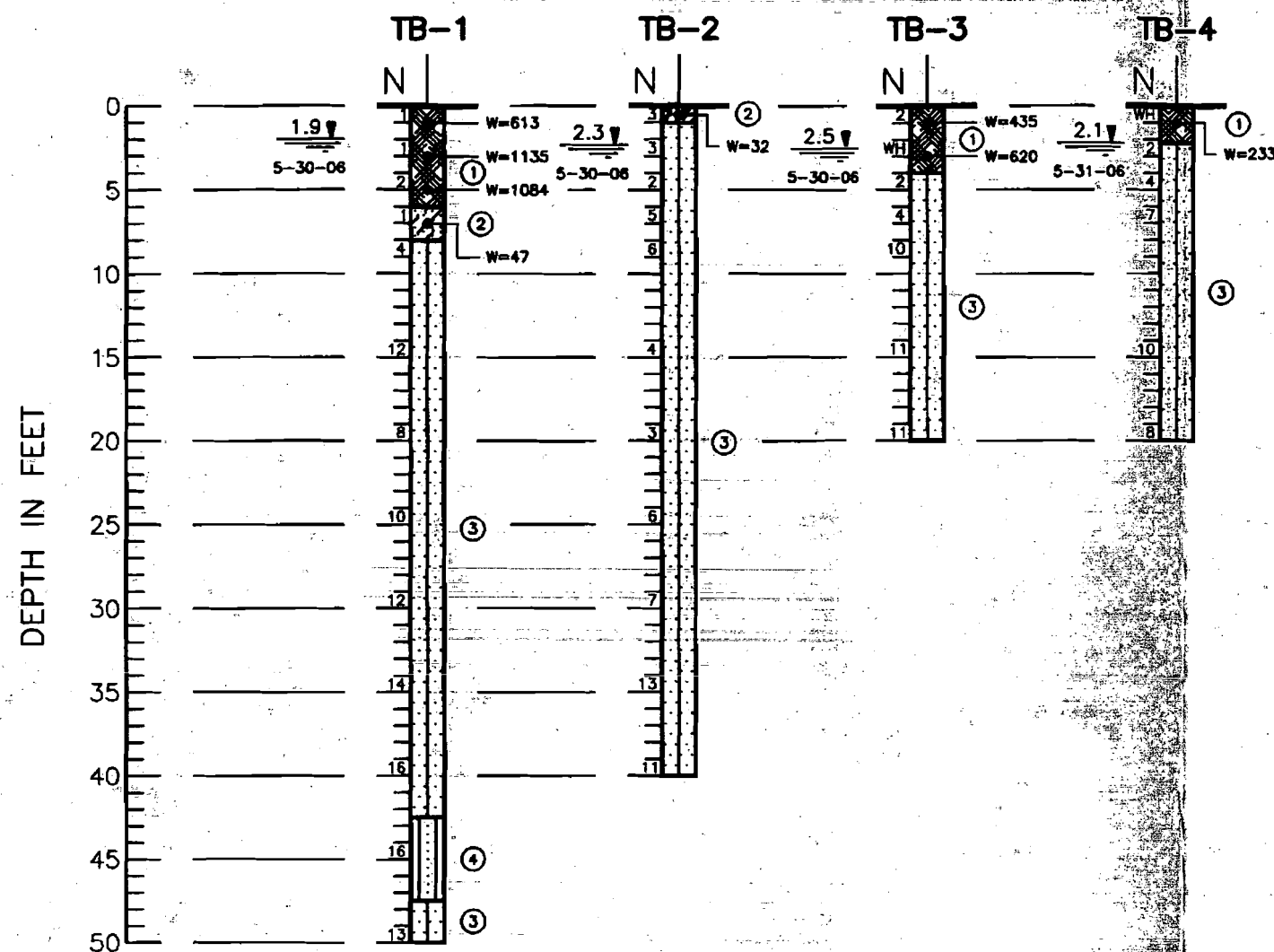
**LEGEND**

- APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING
- SURVEY POINT NUMBER
- GROUND SURFACE ELEVATION (FEET)
- ORGANIC SOIL THICKNESS AS DETERMINED BY DISNEY SURVEY DEPARTMENT (FEET)
- THICKNESS OF MUCK IN FEET (BY PS)

NOTE: MUCK PROBE DATA SHOWN FOR DISNEY SURVEY DEPARTMENT DATA ONLY. DATA IS NOT RESPONSIBLE FOR QUANTITY, TIME-OF-USE OF PROBE DATA BY OTHERS. ADVISE, MUCK PROBE DATA FROM PENETRATING FULL DEPTH OF CHANGES.







**SOIL PROFILES**  
SCALE: 1"=10'

- LEGEND**
- ① DARK BROWN PEAT, (PT)
  - ② DARK BROWN ORGANIC FINE SAND, (SP)
  - ③ LIGHT GRAY TO DARK BROWN FINE SAND TO SLIGHTLY SILTY FINE SAND, (SP), (SP-SM)
  - ④ LIGHT BROWN SILTY FINE SAND, (SM)
  - (SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
  - N STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
  - 2.1  
5-31-06 DEPTH TO GROUNDWATER LEVEL IN FEET WITH DATE OF READING
  - WH FELL UNDER WEIGHT OF ROD AND HAMMER
  - W NATURAL MOISTURE CONTENT IN PERCENT

GEOTECHNICAL ENGINEERING SERVICES  
**DVC RESORT**  
**ANIMAL KINGDOM LODGE**  
WALT DISNEY WORLD, FLORIDA

**psi** Information  
To Build On  
Engineering • Consulting • Testing

DRAWN: DJW	SCALE: NOTED	PROJ. NO: 757-65089
CHKD: IK	DATE: 7-18-06	SHEET: 2